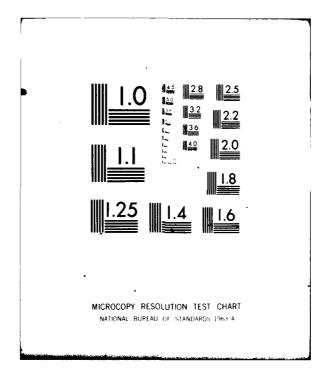
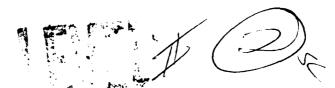
NAVAL POSTGRADUATE SCHOOL MONTEREY CA F/G 5/3 AN ANALYSIS OF THE CORPORATE MERGER BETWEEN THE BABCOCK & WILCO--ETC(U) SEP 80 R S RUSSELLY AD-A093 556 UNCLASSIFIED NL 1 00€ 12 005 C





NAVAL POSTGRADUATE SCHOOL Monterey, California



THESIS



AN ANALYSIS OF THE CORPORATE
MERGER BETWEEN THE BABCOCK & WILCOX CO.
AND J. RAY MCDERMOTT & CO., INC.

by

Robert Stephen Russell

September 1980

Thesis Advisor:

L. Darbyshire

Approved for public release; distribution unlimited

DOC FILE COP.

31 1 08 043

Unclassified
CURITY CLASSFICATION OF THIS PAGE (THEN Date Ente

REPORT DOCUMENTATION PAGE	READ INSTRUCTIONS BEFORE COMPLETING FORM
	1 3. RECIPIENT'S CATALOG NUMBER
ATD 19935	
AN ANALYSIS OF THE CORPORATE MERGER	Master's Thesis
BETWEEN THE BABCOCK & WILCOX CO. AND	September 1980
J. RAY MCDERMOTT & CO., INC.	6. PERFORMING ORG. REPORT NUMBER
The state of the s	
AUTHOR/e)	S. CONTRACT OR GRANT NUMBER(s)
Robert Stephen Russell	1
The state of the s	
PERFORMING ORGANIZATION NAME AND ACCRESS	10. PROGRAM ELEMENT, PROJECT, TAS
Naval Postgraduate School	10. PROGRAM ELEMENT, PROJECT, TAS
Monterey, California 93940	
1 CONTROLLING OFFICE NAME AND ADDRESS	12 AERORT DATE
Naval Postgraduate School	/ Sep tember 14 8%
Monterey, California 93940	13. HUNGER OF PAGES
MONITORING AGENCY NAME & ACCRESS/II different from Controlling Office)	158
	is second vector (or this report)
Naval Postgraduate School	Unclassified
Monterey, California 93940 12 157	The DECLASSIFICATION/DOWNGRADING
	- SCHEDULE
Approved for public release; distribution	unlimited
	41123200
	With Mills of Co.
	
	
17. DISTRIBUTION STATEMENT (of the charrons antered in Block 20, If different in	
17. DISTRIBUTION STATEMENT (of the observant entered in Block 20, if different i	
17. DISTRIBUTION STATEMENT (of the chairest entered in Block 26, if different to	
17. DISTRIBUTION STATEMENT (of the sherrost entered in Block 36, if different (
17. DISTRIBUTION STATEMENT (at the sharrows entered in Block 26, If different to	
B. SUPPLEMENTARY NOTES	
S. SUPPLEMENTARY NOTES S. KEY WORDS (Continue on reverse side il necessary and identify by block manbe	
SUPPLEMENTARY NOTES KEY WORDS (Continue on reverse side if necessary and identify by block mande Acquisition	
S. SUPPLEMENTARY NOTES S. KEY WORDS (Continue on reverse side il necessary and identify by block manbe	
S. KEY WORDS (Continue on reverse side if necessary and identify by block number Acquisition Mergers The Babcock & Wilcox Co.	
S. KEY WORDS (Continue on reverse side if necessary and identify by block number Acquisition Mergers The Babcock & Wilcox Co. J. Ray McDermott & Co., Inc. Three Mile Island	em Report)
S. KEY WORDS (Continue on reverse side if necessary and identify by block number Acquisition Mergers The Babcock & Wilcox Co. J. Ray McDermott & Co., Inc. Three Mile Island	Paperi)
** Supplementary notes ** KEY WORDS (Continue on reverse side if necessary and identify by block number Acquisition Mergers The Babcock & Wilcox Co. J. Ray McDermott & Co., Inc. Three Mile Island ASTRACT (Continue on reverse side if necessary and identify by block number This thesis analyzes the corporate merger	between the Babcock &
Acquisition Mergers The Babcock & Wilcox Co. J. Ray McDermott & Co., Inc. Three Mile Island Astract (Continue on reverse side if necessary and identify by block numbers) This thesis analyzes the corporate merger Wilcox Company and J. Ray McDermott & Co.	between the Babcock & Incorporated.
Acquisition Mergers The Babcock & Wilcox Co. J. Ray McDermott & Co., Inc. Three Mile Island Acquisition This thesis analyzes the corporate merger Wilcox Company and J. Ray McDermott & Co. merger. consummated on March 31, 1978, fo	between the Babcock & Incorporated. The lowed a lengthy bidding
Acquisition Mergers The Babcock & Wilcox Co. J. Ray McDermott & Co., Inc. Three Mile Island Asstract (Continue on revoce side if necessary and identify by block number This thesis analyzes the corporate merger Wilcox Company and J. Ray McDermott & Co. merger, consummated on March 31, 1978, forwar between McDermott and United Technolog	between the Babcock & Incorporated. The lowed a lengthy biddingies Corporation. The
Acquisition Mergers The Babcock & Wilcox Co. J. Ray McDermott & Co., Inc. Three Mile Island Asstract (Continue on reverse side if necessary and identify by block number This thesis analyzes the corporate merger Wilcox Company and J. Ray McDermott & Co. merger, consummated on March 31, 1978, for war between McDermott and United Technolog energy crisis, its impact on the future we	between the Babcock & Incorporated. The lowed a lengthy biddingies Corporation. The orld economy, and its
Acquisition Mergers The Babcock & Wilcox Co. J. Ray McDermott & Co., Inc. Three Mile Island Activact (Continue on reverse side if necessary and identify by bleek number This thesis analyzes the corporate merger Wilcox Company and J. Ray McDermott & Co. merger, consummated on March 31, 1978, for war between McDermott and United Technolog energy crisis, its impact on the future we relationship to the businesses of the Babe	between the Babcock & Incorporated. The lowed a lengthy biddingies Corporation. The orld economy, and its cock & Wilcox and McDerm
Acquisition Mergers The Babcock & Wilcox Co. J. Ray McDermott & Co., Inc. Three Mile Island Asstract (Continue on revoce side if necessary and identify by bleek number This thesis analyzes the corporate merger Wilcox Company and J. Ray McDermott & Co. merger, consummated on March 31, 1978, forwar between McDermott and United Technologenergy crisis. its impact on the future we	between the Babcock & Incorporated. The lowed a lengthy biddingies Corporation. The orld economy, and its cock & Wilcox and McDerm and McDermott is then

(Page 1)

251 450 THE SECURITY CLASSIFICATION OF THIS PAGE (Show Date Shieres

Block 20:

growth. The terms of the merger, along with its legality are further described and analyzed. A post merger appraisal was undertaken, including such aspects as Three Mile Island and McDermott's "price-fixing" scandal. The conclusion was that the merger was successful for McDermott for various reasons; but from B&W's viewpoint, the jury is still out.

DD Form 1473 S/N 0102-014-6601 B

Unclassified

SECURITY ELASSIFICATION OF THIS PAGE/Then Bore Shipper

Approved for public release; distribution unlimited

An Analysis of the Corporate Merger Between The Babcock & Wilcox Co. and J. Ray McDermott & Co., Inc.

by

Robert Stephen Russell Lieutenant, United States Navy B. S., Villanova University, 1974

Submitted in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE IN MANAGEMENT

from the

NAVAL POSTGRADUATE SCHOOL September 1980

ABSTRACT

This thesis analyzes the corporate merger between the Babcock & Wilcox Company and J. Ray McDermott & Co., Incorporated. The merger, consummated on March 31, 1978, followed a lengthy bidding war between McDermott and United Technologies Corporation. The energy crisis, its impact on the future world economy, and its relationship to the businesses of Babcock & Wilcox and McDermott are studied. A financial analysis of B&W and McDermott is then conducted to determine their financial positions and potential growth. The terms of the merger, along with its legality are further described and analyzed. A post merger appraisal was undertaken, including such aspects as Three Mile Island and McDermott's "pricefixing" scandal. The conclusion was that the merger was successful for McDermott for various reasons; but from B&W's viewpoint, the jury is still out.

TABLE OF CONTENTS

I.	INT	RODUCTION	10
	A.	ENERGY AND WORLD ECONOMY	10
	в.	BABCOCK & WILCOX AND J. RAY McDERMOTT'S ROLE IN THE ENERGY FIELD	12
	c.	OBJECTIVES	13
	D.	METHODOLOGY	14
	E.	CHAPTER SUMMARIES	15
II.	MER	GERS AND ACQUISITIONS	16
	A.	GENERAL	16
	в.	WHY COMPANIES MERGE	16
	c.	ACQUISITIONS ARE ON THE MOVE	20
	D.	WHY MERGERS FAIL	22
	E.	METHODS OF PURCHASE	23
	F.	LEGAL ENVIRONMENT	24
	G.	CHAPTER SUMMARY	27
III.	MER	GER BACKGROUND	28
	Α.	UNITED TECHNOLOGIES CORPORATION'S INITIAL INTEREST	28
	в.	INTEREST BY McDERMOTT	30
	c.	OFFERS BY UTC AND McDERMOTT	31
	D.	BASIS FOR THE TERMS OF THE MERGER	34
	127	CUADTED CIMMARY	24

IV.	MER	GER ENVIRONMENT 3	8
	A.	THE BABCOCK & WILCOX COMPANY (B&W) 3	8
	В.	B&W'S AREAS OF OPERATION 3	9
	c.	B&W'S MARKETING 4	4
	D.	BENEFITS OF MERGER WITH J. RAY McDERMOTT & CO., INC 4	6
	E.	J. RAY McDERMOTT & CO., INC. (McDERMOTT)	7
	F.	McDERMOTT'S AREAS OF OPERATION 4	9
	G.	GEOGRAPHIC LOCATIONS OF McDERMOTT'S OPERATIONS 5	3
	н.	McDERMOTT'S MARKETS AND COMPETITION 5	5
	I.	BENEFITS OF MERGER WITH BABCOCK & WILCOX CO 5	5
	J.	CHAPTER SUMMARY 5	8
v.	TRE	ND ANALYSIS 5	9
	A.	GENERAL 5	9
	В.	ANALYSIS 6	6
	c.	CHAPTER SUMMARY 8	9
VI.	THE	MERGER 9	1
	A.	UNITED TECHNOLOGIES CORPORATION 9	1
	В.	ASPECTS AND LEGAL BATTLES OF THE MERGER - 9	5
	c.	DESCRIPTION OF THE MERGER 10	0
	D.	BENEFITS OF MERGER AND FINANCIAL OUTLOOK	2
	E.	CHAPTER SUMMARY 10	4

VII.	POST	MERGER APPRAISAL	109
	A.	GENERAL	109
	В.	EFFECTS OF THREE MILE ISLAND	111
	c.	McDERMOTT'S PRICE-FIXING SCANDAL	117
	D.	CORPORATE SHAKE-UP	119
	E.	FINANCIAL OUTLOOK	120
	F.	CONCLUSION	126
VIII.	SUMM	MARY AND CONCLUSIONS	127
	A.	SUMMARY	127
	В.	GENERAL CONCLUSIONS	129
	c.	CONCLUSION	133
APPEND:	IX A:	THE BABCOCK & WILCOX CO. Financial Statements: 1973 to 1977	135
APPEND:	IX B:	J. RAY McDERMOTT & CO., INC. Financial Statements: 1970 to 1979	137
APPEND	IX C:	LIST OF ABBREVIATIONS	148
FOOTNO	res -		149
BIBLIO	GRAPH	IY	154
TNITOTA	r. nte	TOTALITAN LIST	150

LIST OF EXHIBITS

III-l	Comparative Stock Prices, 1975 to 1977	35
IV-1	Sales of Steam Generating and Associated Equipment and Tubular Products, B&W, 1973 to 1977	39
IV-2	Distribution of Shipments by Markets, B&W, 1976 to 1977	45
IV-3	Revenues, Net Operating Income, McDermott, 1973 to 1980	48
IV-4	Comparative Financial Data, fiscal year 1979-	56
v-1	Summary of Financial Ratios, B&W	67
V-2	Summary of Financial Ratios, McDermott	68
V-3	Current Ratio Trends	70
V-4	Acid Test Ratio Trends	70
V-5	Average Collection Period Trends	73
V-6	Profit Margin Trends	73
V-7	Earnings Per Share Trends	75
V-8	Total Debt to Total Assets Trends	75
v-9	Long Term Debt to Capitalization Trends	76
V-10	Owners' Equity to Total Liabilities Trends	76
v-11	Owner's Equity to Total Equity Trends	77
V-12	Net Income to Net Working Capital Trends	77
V-13	Price/Earnings Ratio Trends	81
V-14	Dividend Yield Ratio Trends	81
V-15	Net Sales to Inventory Trends	85
V-16	Net Sales to Net Working Capital Trends	85

V-17	Net Sales to Fixed Assets Trends	86
V-18	Net Sales to Total Assets Trends	86
V-19	Return on Equity Trends	88
V-20	Return on Assets Trends	88
VI-1	Proforma Combined Balance Sheet	105
VI-2	Proforma Combined Statement of Earnings 1	107
VII-l	J. Ray McDermott & Co., Inc., Consolidated Balance Sheet, 1980	122
VII-2	J. Ray McDermott & Co., Inc., Consolidated Statement of Income and Retained Earnings, 1980	124

I. INTRODUCTION

A. ENERGY AND WORLD ECONOMY

The world's economy has changed dramatically in the last decade. There has been a slowing down of the rate of economic growth, due largely to the sharp increase in the price of energy since 1973.

In the years 1973-1977 the world experienced an energy crisis. This crisis was not the result of a global shortage of energy sources but rather was contingent on four actors: an increase in global consumption of energy during the 1960's; an arbitrary price structure for petroleum and natural gas which led to increased reliance on these two attractive sources of energy as opposed to coal and atomic energy; the peaking out of the United States gas and petroleum production in 1970-1971: and OPEC's successful exploitation of oil prices.²

The world today is 90 percent dependent on three forms of energy; oil, coal and natural guas. A fourth source is nuclear power, but as of 1978 it comprised only 2 percent of the world's energy needs. Oil and natural gas have been in more demand than coal over the past 50 years because of their ease in storage, handling and shipment. But coal may have the advantage for the future due to its abundance and access. The United States, Soviet Union and China have vast

resources of coal that have yet to be tapped. So too oil and natural gas are known to exist in great quantities; but the easy places to look have already been explored. The uncertainty lies in the lack of knowledge of where these untapped resources exist, the technologies that bear on finding and exploring them; and their more efficient use.

As W. W. Rostow remarks, "We have ample fossil fuel reserves, if supplemented by some expansion of nuclear power from existing technology, to cover requirements down to about the 1990's; but the energy base of industrialized civilization will then have to include increasingly some new energy source."

Energy experts project that from now through the turn of the century coal, which comprises 80 percent of the world's fossil fuel reserves, will supply only 22 percent of the world's energy. In contrast oil and natural gas will comprise some 67 percent; while they only constitute seven percent of known reserves. 5

Sources of energy for the future needed to supplement fossil fuels, are believed to be solar energy, oil extracted from shale rock or tar sands and nuclear power. The conclusions made are that oil and natural gas will run down over the next century, with coal remaining for a longer time; and these other forms of energy continuing on from there.

As stated in the 1977 Annual Report of J. Ray McDermott & Co., Inc., "... by 1985 coal production is likely to increase by at least 50 percent in the United States and nuclear power, here and throughout the developed world, should grow to three times its 1976 level."

B. BABCOCK & WILCOX AND J. RAY McDERMOTT'S ROLE IN THE ENERGY FIELD

The preceeding section gave a short synopsis of the energy problems that the world economy will be looking at in the future. These problems deal directly with the businesses of the Babcock & Wilcox Co. (B&W) and J. Ray McDermott & Co., Inc. (McDermott) and in the author's opinion indirectly led to the merger of these two companies.

B&W's main business lies in the manufacture of huclear and fossil-fuel generating equipment. These power generation equipment include coal-fired boilers and nuclear steam systems. B&W is thus heavily involved in the future energy field. With continuing emphasis being placed on coal and nuclear power as a source of future energy, B&W is a world leader in this field. As a result they were attractive to both United Technologies Corporation (UTC) and J. Ray McDermott & Co., Inc. (McDermott) as a potential merger candidate.

McDermott is a leader in the construction of offshore drilling platforms. While oil and natural gas are available, in many areas of the world they sometimes lie beneath the ocean floor in water depths exceeding 1000 feet. Although

McDermott has developed equipment to explore at these depths, the costs of such exploration are very high. In consequence exploratory drilling has also become more expensive and riskier to a company.

Since 1976 McDermott's financial picture has deteriorated drastically due to reduced sales resulting from problems in offshore drilling. For this reason they desired, and eventually accomplished, a merger with B&W.

C. OBJECTIVES

Because of the tremendously changing economy over the 1970's, and specifically the energy crisis, companies such as B&W became major acquisition targets of corporations who wanted to diversify or expand externally. A leader in the power generation field, B&W was the acquisition prize of 1978.

With this in mind the author's objective was to look at this merger and appraise whether or not it was beneficial for both companies. McDermott's two main goals for the acquisition were to (1) diversify to lessen the blow of their declining marine construction business and (2) avoid becoming an acquisition target themselves. B&W's objective was to find the "best corporate parent" in lieu of an eventual takeover.

The author also looks at the combined companies two years after the merger and attempts to analyze whether the

results of the merger are still in keeping with the individual companies' goals. Areas of concern include impending lawsuits brought against B&W and McDermott, especially those resulting from the Three Mile Island nuclear incident of March 28, 1979 and the long range financial outlook of McDermott.

D. METHODOLOGY

Information for this research effort was obtained from two primary sources. First, literature searches were conducted to obtain data concerning mergers in general, and information concerning the details of the merger of B&W and McDermott, under the search locators of Corporate Mergers, Acquisitions and Mergers, Babcock & Wilcox Co. and J. Ray McDermott & Co., Inc. Additionally a search exclusively of the New York Times and Wall Street Journal was conducted to obtain data of the B&W-McDermott merger.

The second source of data was from B&W, McDermott and United Technologies Corporation's corporate offices. These included annual reports, news releases and assorted documents dealing with the merger.

Once these data were obtained mergers in general were studied to determine the rationale behind such consolidations.

B&W and McDermott's businesses in particular, were then

analyzed to appraise the merits from both companies' standpoints. Conclusions were then drawn based on qualitative and quantitative final concerns.

E. CHAPTER SUMMARIES

The thesis begins with a brief look at the energy field and its relation to B&W and McDermott's businesses. Next mergers and acquisitions are discussed in general. Such aspects as the motives behind, failings in and legal implications of mergers follow.

The next three chapters provide a brief background to the McDermott-B&W merger, the two companies' operations and finally a trend analysis of each individual company.

Chapters VI and VII presents a description and appraisal of the merger, respectively. Chapter VIII includes an analysis of the outcome of the merger from the two companies standpoints after two years of operation and general conclusions, taking into account the impact of the nuclear accident at Three Mile Island on B&W's nuclear business, McDermott's "price-fixing" scandal and the shakeup within B&W's corporate structure as a result of the merger.

II. MERGERS AND ACQUISITIONS

This chapter discusses mergers and acquisitions in general. It describes motives for mergers and why some mergers fail. Finally it addresses various methods of purchasing a company via merger, and the legal implications to be considered when attempting one.

A. GENERAL

"The term 'merger' implies a combination of two or more formerly independent business units into one organization with a common management and ownership." "An 'acquisition,' on the other hand, concerns one company's purchase of another's total or controlling interest, usually in the form of stock, and the subsequent operation of the purchased company as a separate division or subsidiary."

Both these terms are used interchangeably when talking about the combination of two companies. Other texts say that mergers are defined as acquisitions of large companies. In this thesis the author will use both terms interchangeably when addressing the acquisition of the Babcock & Wilcox Company by J. Ray McDermott & Co., Incorporated (McDermott).

B. WHY COMPAINES MERGE

Corporations over the decades have grown and expanded by two basic and distinct means, internally or externally. Internally, a company would improve its product and product line, lower costs, increase research and development, diversify and gradually increase its sales and profits. Month after month, year after year they would improve and grow from within.

In contrast to this is the method of external growth, the method of increasing sales and profits by the acquisition of another company's product line. Usually a company which is growing well internally, will also try to acquire other companies, although this is not always the case. Top executives feel that through mergers a company can complement its internal growth thus enhancing its growth rate overall. From an economic viewpoint there are basically three different types of mergers, or business combinations; horizontal, vertical and conglomerate.

Horizontal expansion occurs when two compaines in the same business combine in order to broaden their capabilities in the market and often times improve their position within their competitive market. The chief obstacles to this type of expansion come from the Federal Trade Commission and Justice Department's Antitrust Division which may stop the merger if it is felt that a monopoly would be formed or would tend to operate in restraint of trade.

Vertical combination occurs when a company combines with either a supplier or customer. The objectives are economies

of scale, better quality control of his outputs and access to and control over raw materials.

A conglomerate merger exists when two unrelated companies join together. This is often the case because companies hope to diversify into other fields of business, especially ones that have the potential for large economic growth.

A major motive for a company in a static, stagnant or declining industry is to merge with one in a growing field. By diversification companies are looking for long term financial improvement.

There are numerous reasons why a firm would desire to merge. What companies should look at is whether a merger is better for them than comparative internal growth alternatives.

The following are some of the motivations for companies to merge:

- 1. To save time in building a new product line, new market area or new research and development team. For example, synthetic fibers brought into the market a veritable flood of new products, from nylon stockings to house insulation. 10
- 2. To increase the growth rate of the company. In past years some firms have established very attractive earnings growth rates due to mergers.
- 3. Diversification into a different industry. Conglomerate mergers provide one way of acquiring an entirely

different class of assets. In this way a company can improve its cyclical and seasonal stability by diversifying into a product to fill its slack periods.

- 4. To acquire better know-how through different management. Either because of new technological advances or a company's inability to acquire new management independently, a company could merge to gain the expertise of the acquired company's management.
- 5. To increase borrowing capacity and to qualify for certain contracts.
- 6. To offset a threatened loss of market. Examples such as the tobacco and steam locomotive companies had to diversify to cushion threats to their respective markets.
- 7. To improve a company's market effort by buying either a supplier or customer. In this way his access to resources or outlets for his outputs are protected.
- 8. For tax reasons. In order to purchase a company with prior tax losses which will offset current or future earnings.
- 9. To be economically strong and protect against takeover maneuvers. This is one of the main reasons for McDermott's desire to acquire B&W.
- 10. Synergistic operating economies. This is one of the most common reasons for mergers. The basic belief is that one combined company is more efficient than two separate companies, resulting in operating cost savings and increased operating profitability. 12

11. To increase the firm's stock value and owner's investment in the firm.

These are just some reasons or motivations for which companies merge. Each company has its own reason for merging. Often a company does not have any choice but to merge. Thus, to the extent possible, a company should examine its best interest and decide whether a merger is right for them or not. If they are forced to merge they should analyze which corporation will make the best "parent." As stated by United Technologies' Senior Vice President and Chief Financial Officer, Edward L. Hennessey, Jr., "A good acquisition policy will incorporate a well-defined procedure of industry analysis. Important points to check include: sales and earnings trends, seasonal patterns, secular trends, and the industry's overall sensitivity to general economic conditions." 13

C. ACQUISITIONS ARE ON THE MOVE

"What is termed 'the merger movement' refers to the periodic rise and fall in the number of mergers taking place, roughly corresponding to cyclical swings of prosperity and depression." Since the 1920's there have been five periods which experienced large fluctuations in the number of mergers. The first started after World War I and continued until the early 1920's. The second started during the economically prosperous times of the mid-1920's and ended with the

economic crash of 1929. The third started after World War II and continued through to 1948. The fourth started in 1950 and continued to 1968. The present wave started in 1974 and is still growing.

One aspect of today's acquisitions is that there seems to be more "hostile" takeovers than in the past. In this type merger the acquirer would choose a target select an appropriate price, and make a surprise tender offer. While once it was unheard of to attempt to acquire another company without its consent, today it is becoming commonplace. Also, the target companies of today are for the most part a lot larger than they used to be. Acquisition takovers such as McDermott's acquisition of B&W, and Kennecott Copper's purchase of Carborundum cost over \$500 million, and Unilever paid \$482 million for National Starch. 15 Today, instead of going to a company's top management and discussing the possibility of a takeover an acquirer has various alternative options. One of these methods is to simply go to the stockholders in order to buy a controlling interest in a company. These tender offers have, in the years 1978 to 1980, been made at prices averaging anywhere from 25 to 100 percent above the market value of the target stock (in 1978 B&W's was 83.8 percent higher).

As some analysts have stated, it seems that the current takeover trend is more than just a passing fad. One reason is the fact that takeovers or mergers generally make economic

sense. In today's bidding wars however, it costs the acquiring companies a great deal of money for legal and advisory fees, compared to years ago, when takeovers were fairly straightforward operations. Because of this, to the extent to which it is possible, companies must be sure of all the legalities concerning the merger and whether or not the merger is right for its company. Otherwise the merger could cause more harm than good, and could eventually fail.

D. WHY MERGERS FAIL

Mergers, unlike marriages, are not made in heaven. They can fail for a variety of different reasons. There are five deadly defects that occur again and again:

- 1. Financial considerations alone do not necessarily provide a good foundation for a successful acquisition.
- 2. Many mergers fail because of managements' inexperience in the selection of an acquisition strategy, the selection of potential candidates, and in the implementation of the program.
- 3. A frequent problem is lack of preplanning to identify the long-term, nonfinancial impacts of the merger on the parent company.
- 4. Improper fit of the merged companies is another problem.
- 5. Poor communication between the parent and subsidiary companies once the initial novelty of the merger wears off. 16

As described above, although mergers can be the right avenue for growth of a company, they are not always the most productive route. When considering a merger, companies must move cautiously to avoid the many pitfalls that can occur along the way.

E. METHODS OF PURCHASE

Corporations are formed and operate under the governing laws of the federal government and the states in which they choose to incorporate. In addition, all states have rules and laws that govern the merging of two companies. Although each state may have differing merger laws they are all linked together by three common and basic methods of merging; purchase of assets, purchase of stock or "statutory" merger or consolidation.

By purchase of assets, a corporation can buy another company's assets, but still leave the selling company's structure intact. By purchase of stock, the acquiring company goes directly to the shareholders and buys their shares of stock. Unlike a purchase of assets, a purchase of stock does not require approval of the acquired company's board of directors.

The third method is "statutory" merger or consolidation.

By complying with the requirements explicitly set out in a state's statutory scheme, a merger results by operation of law. In a merger, one of the joining corporations survives,

while the others cease to exist as legal entities. In a consolidation, all the corporations existing prior to the act of joining cease to exist as legal entities and a new corporation is created. 17

Therefore, although the post merger corporate structure can be achieved by various different forms, the methods are not interchangeable. The choice of how they pay the purchase price is one consideration. Another is the different legal consequences that can and often times do result from mergers and the methods used in acquisition.

F. LEGAL ENVIRONMENT

Mergers and acquisitions today are not as neat and clean as a decade ago. The regulatory environment that surrounds acquisition activities is becoming ever more complex. There are numerous acts and laws in existence that restrict mergers and acquisitions, especially in the areas of restraint of trade and hampering of competition.

Since the late 1890's Congress has passed various laws to prevent harmful monopolies, and therefore safeguard the American free enterprise system. Of these laws the Sherman Anti-Trust Act of 1890 is the most familiar. Enforced by the Justice Department's Anti-Trust Division, the Sherman Act makes it a punishable misdemeanor for the owners, managers or directors of any firm to monopolize, combine or conspire with others to monopolize any part of the trade in

interstate commerce or with foreign countries. 18 Over the years the Supreme Court has had to make numerous decisions concerning this act. It has been concluded that the Sherman Act deals with "unreasonable" restraint of trade and only these restraints are unlawful.

In 1914 two acts were enacted that further defined and sharpened the Sherman Act of 1890. The Clayton Act defined certain unreasonable restraints of trade, including some unfair trade practices of a more localized nature. It stated that any collusion or merger for the purpose of controlling sources of supply for any industry is unreasonable restraint of trade. The second act, the Federal Trade Commission Act, declares that monopolistic competitive methods in interstate commerce, such as conspiring to fix prices, are unlawful. 19 These two acts are ones that merging companies must take a good look at prior to entering into any merger agreement. The Federal Trade Commission continued its enforcement of these acts by amending the Federal Trade Commission Act in 1967 to include general policies and procedures that they will follow when challenging mergers on the grounds of restraint of trade.

Fifteen years ago the world of hostile takeovers and mergers was a straight forward operation. But times have changed, due largely to two pieces of legislation enacted since 1968. In that year Congress passed the Williams Act.

"It required companies making tender offers to disclose

certain basic information, e.g., who they are, the source of their funds, and what they plan to do with the target."²⁰ This requirement tended to stop hostile takeovers from happening before the target company could get its defenses collected. One pitfall of the act was, however, that surprise offers could still occur. As a result, target companies lobbied for state laws that they could use as defenses. During the late 1960's over 30 states agreed to these laws. These generally stated that the acquiring company would have to abide by certain restrictions, if their offer to acquire a company was rejected. They would also require acquiring companies to disclose their takeover plans in advance, and therefore would give the target time to tie up the takeover offer in court.

More recently, in June 1978, the Hart-Scott-Rodino Act was passed. This act stated that "corporations with assets of \$100 million or more must notify the Federal Trade Commission and the Anti-Trust Division of the Justice Department thirty days in advance of a contemplated merger with a company whose assets were \$10 million or more...providing that the acquisition involves at least 15 percent of the acquired company's voting securities." 21

The final law to be discussed deals specifically with such mergers as that of B&W and McDermott, i.e. those taking place involving companies in the atomic energy field. This

act is the Atomic Energy Act of 1954. The one specific article that applies in the B&W-McDermott merger is Article 184. It states that no license granted under the Atomic Energy Act of 1946 and no right to utilize or produce special nuclear material can be transferred, assigned or disposed of in any manner without prior written consent by the Atomic Energy Commission. 22

As can be seen, there are many varied laws and statutes in existence today that puts numerous restraints on mergers, especially on the acquiring company. This is one good reason why companies considering mergers in today's financial world should have lawyers thoroughly familiar with the various laws and statutes. In this way the likelihood of an unsuccessful merger attempt can be minimized.

G. CHAPTER SUMMARY

In summary it can be said that mergers are becoming more commonplace in today's financial society. Merging is an alternative means of expanding a company's operation, other than by internal means. The reasons that companies merger are numerous and varied. So too are the legal obstacles, that due to their complexity, can result in an unsuccessful merger or attempt at merger.

III. MERGER BACKGROUND

In this chapter the author provides a brief background of the Babcock & Wilcox Co. - J. Ray McDermott & Co. merger, starting with United Technologies' (UTC) initial interest in B&W, McDermott's reasons for entering the merger picture, the subsequent bidding war between McDermott and U.T.C. and finally with the basis for the terms of the McDermott-B&W merger.

A. UNITED TECHNOLOGIES CORPORATION'S INITIAL INTEREST

In March 1977, U.T.C. a Connecticut based conglomerate, announced that it had submitted a proposal to the board of directors of B&W to purchase any and all shares of the outstanding common stock of B&W for \$42 per share. In commenting on this action, U.T.C. chairman and president, Harry J. Gray, said: "This proposed acquisition fits the criteria United Technologies first established in 1973. At that time we publicly outlined the profile of potential partners for United; namely, that they be successful, established, high-technology companies, operating profitably in markets where they hold leading positions outside the government sphere. Babcock meets all of United's established criteria. A leader in its basic business, it has a high measure of technology in all of its operations, a competent and aggressive management in place, and an excellent financial base, with a healthy performance trend."23

In B&W, U.T.C. was after what industry observers and analysts agreed was an acquisition prize. While B&W's stock was then selling at \$34 a share on the New York Stock Exchange, many analysts were looking at the growth potential of its coal and nuclear-power plants equipment. An offer of \$42 a share seemed cheap. As one analyst stated, "about \$50 a share would be more like it." B&W's financial figures since 1973 had been impressive in the eyes of U.T.C.'s Harry Gray. Earnings had doubled in four years to a record \$53.1 million, or \$4.57 per share. B&W obtained much of that increase by simply freeing itself from profit-draining, fixed price contracts with the utility companies it supplied. This plus increased sales of boilers, nuclear-steam systems, fans and other equipment made B&W an attractive catch.

U.T.C. was interested in acquiring B&W rather than Combustion Engineering, a competitor of B&W's in both nuclear and boiler equipment sales, because it would be cheaper, and B&W was thought to be in a better position to pick up new orders when utility orders picked up in a few years. Says Paul Hellingby, Jr., chairman of the investment house White, Weld & Co., "we liked the vertical integration of B&W in steam generation and were not attracted to Combustion's businesses outside the power generation field, such as its oil tools and glass units, where growth doesn't seem as promising." 26

Both U.T.C. and B&W are in the power-generating equipment business, with B&W a leading manufacturer of fossil-fuel boilers, while U.T.C. is a big seller of gas turbines. With the acquisition of B&W, U.T.C. would have had an even larger share of the power-generation industry.

١

B. INTEREST BY McDERMOTT

As is shown in the financial statements exhibited in Appendix B, McDermott's marine construction services business had come upon hard times. Of interest to McDermott was the fact that both their and B&W's businesses were similar. They both were concerned with the energy business with B&W being the manufacturer of power generation equipment while McDermott constructs platforms for oil drilling operations. As previously was stated, B&W was a leader in its business field and was showing a nice financial picture to the management of McDermott. With B&W's stock selling in the mid-30's at the time of U.T.C.'s first offer of \$42.00 per share, it was obvious that the analysts sensed that B&W was going to continue to grow and thus was worth more than its current market value.

McDermott's management believed that through a merger with B&W the opportunity for major diversification of its business was possible. It also believed that this merger would reduce McDermott's concentration in its present industry by expanding its participation in engineering and

heavy construction activities, in energy and in energy-related areas. McDermott believed that a merger of the two companies and the resulting pooling of their combined capabilities would enable them to supply resources to meet the ever increasing challenges within the energy field. B&W also believed that the merger would benefit their company and its shareholders as well, particularly when U.T.C. initially was seeking to take over B&W at \$42.00 per share.

١

Another reason for McDermott's interest was that because of their worsening financial picture, they were becoming a prime candidate for takeover themselves. Merger with B&W would make them harder to acquire than in their then present condition.

As a result of these reasons and the subsequent successful bidding war won against U.T.C., in August 1977 the board of directors of B&W and McDermott unanimously approved the merger and recommended to their respective shareholders to vote in favor of the merger.

C. OFFERS BY U.T.C. AND MCDERMOTT

As stated previously, in March 1977 U.T.C. made the initial move by offering \$42.00 per share for B&W stock. This offer was rejected by B&W on April 4, and litigation was brought against U.T.C. by B&W in the Federal District Court of Ohio. The alleged violations by U.T.C. were of

(1) the anti-trust laws, (2) Atomic Energy Act of 1954, (3) the Securities Exchange Act and (4) the statute and common law of various states. ²⁷

From April 6 through the close of business on May 13

McDermott purchased an aggregate of 1,205,600 shares of B&W

common stock (approximately 9.9 percent) in open market trans
actions on the stock exchange. The purchase prices for

these shares ranged from \$39.875 to \$45.125 a share, for a

total purchase price of \$51,566,022, including commissions.

Having followed the purchase of B&W stock by McDermott, U.T.C. raised its unsuccessful bid of \$42 to \$48 in early August 1977. Before B&W commented on this offer, McDermott came in with their initial proposal for B&W stock, namely to purchase 4.3 million shares at \$55 per share.

Initially B&W's board of directors did not want to recommend this proposal by McDermott to its shareholders. It continued to talk to McDermott, U.T.C. and various other companies who had showed an interest in them, including Rockwell International Corporation and Studebaker-Worthington, Inc. Although these other companies were interested, only McDermott and U.T.C. actually made offers for B&W. On August 14, 1977, the board of directors consented to and recommended the McDermott offer to its stockholders.

From then on the bidding war began. On August 18, U.T.C. raised its \$48 offer to \$55 per share. McDermott followed on August 19 with a bid of \$60 per share. On August 23 U.T.C.

increased its offer to \$58.50 per share and McDermott countered with an offer of \$62.50 per share, the ultimate winner.

The war was not yet over. On August 24, 1977, B&W's board of directors declared a special dividend of \$2.50 per share payable on October 3, 1977 to stockholders of record as of September 15, 1977. U.T.C. then announced that they would pass through \$1.25 of that dividend to the B&W stockholders who tendered their shares to United. McDermott, on August 25th, went one step further and announced that in addition to the \$62.50 per share offer, they would pass through the entire \$2.50 dividend to thos shareholders who tendered their shares to McDermott. In addition, they would increase the number of shares to be purchased from 4.3 million to 4.8 million. Together with the 1,205,600 shares it purchased on the open market, McDermott would own approximately 49% of the B&W shares outstanding.

Later that same day, U.T.C. terminated its offer to purchase any and all B&W common shares. In a statement issued that day, Harry J. Gray said: "We continue to view Babcock & Wilcox as a well-managed company with excellent operating and financial strength. A pragmatic assessment of the economic conditions surrounding the most recent J. Ray McDermott offer has caused us to conclude that it is no longer in the best interests of United Technologies' shareholders to pursue this matter further." 28

D. BASIS FOR THE TERMS OF THE MERGER

The terms of the merger were the result of arm's length negotiations between representatives of both companies.

"Among the factors considered in implementing the statement in the offer with respect to the consideration to be received by B&W stockholders in the combination, were the assets, obligations, products, operations, and earnings of each company, their management and the market value of the capital stock of McDermott, as well as judgements with respect to the prospects of each company, both as separate entities and as a combined enterprise."

29 Appendix A and B shows both companies' financial statements over the past five to seven years.

Exhibit III-1 shows the comparative high and low stock prices per share of McDermott and B&W common stock for the years 1975 to 1977. One note of interest is that on November 8, 1977 McDermott declared a two-for-one stock split to be effective on January 16, 1978 for shares on record as of December 15, 1977. The high and low stock prices for McDermott therefore are adjusted to reflect this in addition to the June 20, 1975 two-for-one stock split. 30

In February 1978 McDermott's board of directors hired Smith Barney, Harris Upham & Co., Inc. to look at the terms of exchange of the proposal merger from a financial viewpoint. B&W, on the other hand, sought the services of Morgan Stanley & Co., Inc., a longtime financial advisor to B&W, to look

COMPARATIVE STOCK PRICES

Year	McDermott	B&W
1975	High Low	High Low
Quarter ended March 31	21 1/4 14 7/8	19 5/8 13 1/2
Quarter ended June 30	27 1/2 17 3/4	27 3/8 15 1/4
Quarter ended September 30	27 7/8 21	27 17 3/4
Quarter ended December 31	24 5/8 16 3/4	20 1/4 17 1/2
1976		
Quarter ended March 31	24 7/8 19	29 3/8 18 3/4
Quarter ended June 30	26 1/4 21 7/8	36 1/8 26 1/8
Quarter ended September 30	27 5/8 22 7/8	36 3/4 31 1/2
Quarter ended December 31	26 5/8 22 5/8	35 5/8 28 5/8
1977		
Quarter ended March 31	25 3/4 21 5/8	40 1/4 28 1/4
Quarter ended June 30	29 1/4 25 1/8	47 1/4 38 1/2
Quarter ended September 30	29 1/4 22 1/2	60 5/8 41 1/4
Quarter ended December 31		59 1/4 54 1/4

EXHIBIT III-1

after their interests. Smith Barney reported to McDermott that in their estimation the terms of the merger were fair from the shareholders point of view. Morgan Stanley advised B&W that the \$2.20 convertible preferred stock and the \$2.50 preferred stock into which each B&W common share would be converted upon consummation of the merger would have a market value of approximately \$62.50.

One final aspect of the merger terms was that both

McDermott and B&W agreed that if the merger was consummated,

five of the present directors of B&W, Messrs. George G. Zipf,

R.J. Cantwell, W.O. Baker, Walter B. Shaw and William L.

Wearly, would become directors of McDermott. In this way,

B&W's management policies could not be altered without

overcoming the objections of these board members.

As reported in March 31, 1978 New York Times, "Shareholders of both J. Ray McDermott & Co. and the Babcock & Wilcox Co. yesterday approved the merger of Babcock & Wilcox into a wholly owned McDermott subsidiary." Under this agreement the remaining shares of B&W common stock not already bought by McDermott would be converted to McDermott preferred stock according to the provisions of the merger agreement.

So climaxed one of the year's biggest acquisiton battles, one that would eventually cost McDermott in excess of \$750 million in its bid to acquire B&W.

E. CHAPTER SUMMARY

U.T.C.'s initial interest in B&W was due to B&W's leading position in the power generation industry. U.T.C. Chairman Harry J. Gray's philosophy for diversification was through the acquisition of leading high technology companies.

McDermott entered the merger picture for two reasons, to aid its financially troubled marine construction services divisions;

and secondly, to avoid becoming a takeover target itself because of its financial woes. The next two chapters will discuss B&W and McDermott's companies from an operational and financial aspect.

IV. MERGER ENVIRONMENT

This chapter will discuss the businesses of the two merged companies. A general overview of the companies' areas of operation, markets and competition within their respective industries will be presented. Finally the benefits each company expected to attain from the merger are discussed.

A. THE BABCOCK & WILCOX COMPANY (B&W)

B&W, a New Jersey corporation, and its subsidiaries are engaged in the design, manufacture and sale of products classified into the following industry segments: steam generating and associated equipment, tubular products, refractory products, automated machines and machine tools and control valves. In addition, recently B&W has formed a unit to manufacture advanced composite materials for industrial use. 32.

The steam generating and associated equipment and tubular products divisions are the primary segments of B&W, and together accounted for 93.4 percent of consolidated sales and 90.9 percent of the consolidated income from operations for the year ended 31 December 1977. Exhibit IV-1 below shows the sales of steam generating and associated equipment and tubular products for the five years ended 31 December 1977:

		For '	The Calende:	r Year	
	1973	1974	1975	1976	1977
		(:	In Thousand:	s)	
Steam generating & associated equipment: Sales to unaffiliated					
customers	\$791,000	\$913,100	\$1,132,000	\$1,308,000	\$1,434,000
Intersegment sales	1,400	1,300	1,200	1,900	1,500
Total	\$792,400	\$914,400	\$1,133,200	\$1,309,900	\$1,435,500
Tubular products: Sales to unaffiliated					
customers	\$198,200	\$271,800	\$323,400	\$280,200	\$319,200
Intersegment sales	40,300	64,300	85,200	77,900	74,300
Total	\$238,500	\$336,100	\$408,600	\$358,100	\$393,500

Exhibit IV - 1

B. B&W'S AREAS OF OPERATION

1. Steam Generating Equipment

Steam generating equipment includes individually engineered complete fossil fuel boilers, nuclear steam systems, and nuclear fuel and nuclear fuel assemblies for electric utility and marine applications as well as fossil fuel boilers for industrial processes and power generation. Steam generating equipment also includes specially engineered accessories and components, such as air heaters, fans, precipitators, cleaning systems for heat transfer surfaces, nuclear reactor components, control and performance computers, automatic controls and instruments and nuclear control-rod devices. Associated equipment includes individually engineered recovery processes and pollution control systems for the process and

utility industries, tubular hoods for basic oxygen and electric furnaces, heavy pressure vessels and heat exchangers, hollow forgings for steam piping and other uses and reflective metallic thermal insulation. In addition to designing and manufacturing the foregoing steam generating and associated equipment, B&W through a separate construction unit also is engaged in the erection of certain of this and other equipment. 33

Major divisions within the steam generating equipment area are:

a. Fossil Power Generation Division

Included in this division are coal-fired boilers, B&W precipitators, sulfur dioxide removal systems, air heaters and fans. Major recent contracts within this division were for six 750-megawatt coal-fired boilers valued at \$250 million from the Middle South Utilities Company of New Orleans, a 540-megawatt coal-fired boiler from Cajun Electric Power Cooperative, Inc. of New Roads, Louisiana, and a 364-megawatt coa-fired radiant boiler from Lakeland, Florida, valued at \$35 million.

b. Industrial and Marine Division

Products include fuel-burning equipment, such as the refuse burning boilers recently constructed for Akron and Columbus, Ohio.

c. B&W Construction Company

Activities include the erection of boilers, precipitators, scrubbers, and other power plant equipment as well as a large volume of repair and alteration work on existing units.

d. B&W Canada

B&W Canada supplies both fossil and nuclear steam generating equipment for domestic and international markets. Recent contracts, valued at \$80 million combined, were for sixteen nuclear steam generators and two 200-megawatt coal-fired boilers from the Ontario Hydro Company.

e. Bailey Meter Company

Included in this division is the manufacture and sale of control and monitoring equipment for steam generating equipment. Such products as the Model KA Pressure Transmitter, the 1055 Computer, and Bailey's Conserver Control System have been developed for use in industrial and chemical processes, providing significant fuel savings to such industries as steel, oil, chemical, and paper and pulp.

f. Diamond Power Sepcialty Corporation

Diamond Power is the world's leading supplier of utility and industrial boiler cleaning equipment. Recent advances have occurred in the development of retractable sootblowers designed to clean heat exchangers for the petroleum, chemical, and other industries; and in the

introduction of programmable microprocessor controls for automatic sequencing of the cleaning process.

g. Nuclear Systems and Equipment Division

Included in this division are the construction
of nuclear reactors, nuclear components for the Navy and
special commercial nuclear projects such as the breeder
reactor plant in Clinch River; and most notably the nuclear
plant at Three Mile Island.

2. Tubular Products

Tubular products include stainless, alloy and carbon steel, seamless and welded tubes and pipe, tubular and solid shapes, extrusions, special metal tubes, welding fittings and flanges, and seamless rolled rings. These are principally "specialty" products of high quality, engineered for special applications. Material amounts of tubes are manufactured by B&W to satisfy its own requirements as well as those of other manufacturers of steam generating equipment; however, the major portion of B&W's tubes are sold to others for use in the bearing, petroleum, machinery, primary metal, fabricated metal and construction industries. 34

Plants within the Tubular Products division are located in Alliance, Ohio, Beaver Falls, Pennsylvania, and Milwaukee, Wisconsin. Construction of a new oil-well tube finishing plant at Bryan-College Station, Texas was started in March 1979.

3. Refractory Products

Refractory products include kaolin clays, specially engineered and vacuum formed ceramic fibers, insulating and specialty firebrick, plastics, mortars, castables and special oxide refractories. These refractories are used in high temperature furnaces for various heating and heat treating purposes and in other applications where the temperatures and rates of cumbustion or chemical reactions are unusually demanding. 35

The continuing worldwide need to conserve energy has resulted in an increasing demand for the divisions' high-temperature insulating materials. With advanced technology and facilities for the development and manufacturing of insulating and heat resistant products and systems, B&W's refractories division is helping a broad range of industries increase fuel economy. 36

4. Automated Machinery

Automated machines and machine tools include individually engineered transfer or multi-station machines for production lines, precision boring machines, broaching machines and broaches, large grinders, cutting tools, hydraulic accessories, production tracer lathes and numerical control machines. This equipment is sold to manufacturers both for use in their manufacturing processes and in the products manufactured by them. ³⁷ With the increased demand within the automobile industry for energy-efficient vehicles,

Automated Machine Division's (AMD) demand for transfer lines, lathes, broaching machines and cutting tools has increased dramatically. This division is also a major supplier of structural components for the Navy nuclear program.

5. Control Components

Control Components International (CCI) is a leader in the manufacture of specialty control valves. These valves are used in fossil and nuclear utility plants, in oil well drilling equipment, and other places where accurate control and noise suppression are required. In its market, through the year ended 31 March 1979, CCI had approximately 15 percent of the business against older entrenched competitors. In addition about 35 percent of their business is overseas. 38

6. Foreign Operations

B&W currently has major subsidiaries in Canada and Germany engaged in the manufacture of steam generating and associated equipment. B&W entered the nuclear market in Germany in 1971 with the formation of Babcock-Brown Boveri Reaktor, GmbH (BBR), owned jointly by B&W and Brown Boveri of West Germany. B&W's foreign operations have expanded over the past several years to the point where they now constitute approximately 13 percent of their total sales.

C. B&W'S MARKETING

B&W's steam generating and associated equipment is sold to its customers in the United States and Canada through its own sales force and via independent sales agents to its customers in foreign countries. Tubular products are sold almost exclusively to its customers by its own sales force, but are also sold to distributors. Substantially all of B&W's refractory products, control components and automated machines and machine tools are sold to its customers by its own sales force, with the latter also being sold through independent sales agents and distributors. 39

Exhibit IV-2 below is an approximate distribution for 1976 and 1977 shipments by type of market. These percentages are fairly constant over the previous five years, with the exception of shipments to electric utilities which were slightly lower in previous years (43 percent and 44 percent in 1974 and 1975, respectively).

	1977	1976
Electrical Utilities	52%	50%
Government	12	13
Warehouse and Distributions	8	7
Machinery	7	7
Transportation	4	4
Pulp and Paper	4	3
Chemical and Petroleum	3	5
Fabricated Metal Products	3	3
Primary Metals	1	3
Miscellaneous	6	5
	100%	100%

Exhibit IV-2

D. BENEFITS OF MERGER WITH J. RAY McDERMOTT & CO., INC
Simply stated, B&W's benefit in merging with McDermott
was that it would stop the takeover attempt by U.T.C. If
this takeover had occurred it was feared that the top
executive level of the company, and especially the finance
divisions, would be terminated and filled with U.T.C.
personnel.

After the merger, it was expected that B&W's business would be carried on under substantially its present operating management as a subsidiary of McDermott. The officers of B&W at the time of the merger would become officers of such McDermott subsidiary. 40

Because both companies are engaged in a roughly similar business, namely the energy field, it was felt by B&W management that this merger would lead to a diversification and ultimately to a stronger, more successful engineering enterprise. McDermott seemed a better choice than U.T.C. as a parent company in light of their similarities and U.T.C.'s reorganization plans.

As stated on August 26, 1977 by chairman George C. Zipf, "drawing upon the special capabilities of each component, the combined company will have resources to meet the future challenges of the energy business." 41

E. J. RAY McDERMOTT & CO., INC. (McDERMOTT)

McDermott, a Delaware corporation, was incorporated in 1946 as a successor to businesses which had been engaged in providing construction services to the gas and petroleum industry since the 1920's. A pioneer in offshore platform and pipeline construction in the Gulf of Mexico, McDermott's services today principally consist of the engineering, fabrication and installation of fixed offshore platforms, pipelines and other facilities for development (as distinguished from exploratory) drilling and production operations in most areas of the world where offshore gas and oil reserves are being developed. McDermott also provides engineering and construction services for oil production in shoreline and marshland areas, principally in Louisiana and Texas, and operates two shipyards in Louisiana for the construction, repair and maintenance of tugboats, barges and other small vessels. McDermott does not, however conduct drilling operations. 42

Another McDermott area of operation through Hudson Engineering Corporation and its subsidiaries, is the engineering and construction of processing plants for the oil, gas and petrochemical industries and the manufacture and sale of large air-cooled heat exchangers.

Exhibit IV-3 reflects McDermott's revenues and net operating income for the fiscal years 1973 to 1980 for their

REVENUES
(In Thousands)

for fiscal year ended 31 March

Year	Marine Construction Services	Onshore Construction Services	Total
1973	\$ 314,936	\$ 43,463	\$ 358,399
1974	379,311	46,445	425,756
1975	684,309	58,516	742,825
1976	1,010,105	91,973	1,102,078
1977	1,089,455	134,386	1,223,841
1978	1,116,119	177,592	1,293,711
1979	1,010,816	161,409	1,172,225
1980	982,038	262,052	1,244,090

NET OPERATING INCOME (In Thousands)

for fiscal year ended 31 March

Year	Marine Construction Services	Onshore Construction Services	Total
1973	\$ 30,440	\$ (3,186)	\$ 27,254
1974	44,966	1,451	46,417
1975	95,893	(2,611)	93,282
1976	219,752	10,529	230,281
1977	247,644	11,987	259,631
1978	205,559	15,364	220,923
1979	61,011	(893)	60,118
1980	(46,737)	(6,160)	(52,897)

Exhibit IV-3

Marine Construction Services and for Onshore Construction Services (principally Hudson).

F. McDERMOTT'S AREAS OF OPERATION

1. Marine Construction Services

McDermott's primary expertise is in the construction of specialized offshore, fixed platforms and marine pipelines used for development drilling, production and transportation of oil and gas. These platforms, which are attached to the ocean floor by pilings driven through their structured legs, are permanent in nature as opposed to floating, jack-up and semi-submersible rigs which are used mainly for exploratory drilling. McDermott's platforms are engineered to support great weights and to withstand the stresses involved in undersea pumping and severe weather conditions and sea water corrosion to which they are exposed for many years either as production platforms for a number of completed wells or as gathering and pumping stations. McDermott has installed its platforms in waters up to 1025 feet deep. 43

As the water depths of its operations increases, new techniques and equipment for these extensive underwater pipelaying operations are needed. McDermott has manufactured pipelines coated with concreat that are buried under the ocean floor with the use of underwater jet trenching equipment. They are now able to lay pipelines which have a 72 inch outside diameter (including concrete). Due to the depths of the

water at which these pipes are layed, McDermott also conducts extensive diving operations. Because of the sophistication required at these depths equipment such as diving bells and an underwater habitat are required and used.

2. Marine Equipment

McDermott operates one of the largest fleets of marine equipment used in offshore construction. The nucleus of a "construction spread" is a large derrick barge, pipe-laying barge, pipeburying barge or combination derrick-pipelaying barge capable of offshore operations over an extended period of time in remote locations. At the time of the merger McDermott owned and operated nine derricks, nine pipelaying, ten combination, and four pipeburying barges. 44 These barges range in length from 240 to 420 feet, have lifting capacities of 250 to 1100 tons and have quarters for as many as 272 men.

One new semi-submersible construction barge currently in the construction phase will measure 406 feet long, have a lifting capacity of 2,000 short tons, quarter 548 men and a cost of approximately \$62 million.

3. Fabrication Yards

McDermott's principal fabrication yard is located in Morgan City, Louisana. At this location, McDermott has pipe-rolling facilities for the production of large diameter heavy-wall pipe used in fabricating the platforms, buildings designed for "under-roof" fabrication of large structures,

and modern automatic welding machines, lifting equipment, machine tools and other equipment necessary for the fabrication of the largest of offshore structures. 45

In addition to this main fabrication yard in Morgan City, McDermott also operates yards in the following locations: Harvey, Louisiana, Dubai, United Arab Emirates, Warri, Nigeria, West Africa, Singapore, Southeast Asia, Batam Island, Indonesia, and Inverness, Scotland. The Harvey yard is small and used for the fabrication of smaller offshore structures and pipelining accessories. The yards in Dubai, Warri, Singapore, and Batam Island are capable of fabricating a full range of offshore structures, and consist principally of movable cranes, welding equipment, machine tools and other fabricating equipment. The Inverness yard was established after 1972 and services McDermott's North Sea customers. It was principally designed for "under-roof" fabrication.

Expiration dates included renewal options of the leases covering the land for the fabrication yards are as follows:

Morgan City, La. Years 2001-2024
Warri, Nigeria Year 2065
Singapore Year 2000
Dubai, U.A.E. Year 1980

4. Engineering

In connection with its construction activities,
McDermott has in excess of 650 engineers. With their

expertise in the design of onshore and offshore gas and petroleum production facilities, they add technical and professional support in the field (i.e. at the fabrication yards and in offshore construction) and also help design McDermott's floating equipment.

5. Onshore Construction Services

Hudson Engineering Corporation, acquired by

McDermott in 1969, has been engaged since 1940 in the engineering and construction of processing plants for the oil,

gas, chemical, petrochemical and mineral industries, principally within the United States. Included in such plants are nature gas processing plants for production of ethane, propane, butane and natural gasoline, refinery processing units, oil and gas pipeline pumping stations, chemical and petrochemical plants and plants producing sulfur, uranium ore concentrate and other minerals. Hudson also manufactures heat exchangers, primarily for refineries, chemical plants and electrical generating plants. These units utilize air cooling for dissipation of process plant heat directly into the atmosphere. 46

Operations involving construction of processing plants by Hudson are done on their customers own sites. The material used for construction is manufactured by outside sources, designed to meet Hudson's specifications.

G. GEOGRAPHIC LOCATIONS OF McDERMOTT'S OPERATIONS

McDermott currently has major spreads of onshore and offshore drilling equipment located in the following areas: Gulf of Mexico, the Middle East, Southeast Asia, the North Sea, offshore West Africa and the east coast of South America.

1. Gulf of Mexico

Activity within the Gulf of Mexico has continued to be at a high rate because of the United States' attempt to lessen their dependence on imported oil. The world's tallest and heaviest steel platform, the Cognac platform, was recently erected by McDermott in 1,025 feet of water. Along with the platform, 23 miles of pipeline was layed at water depths of 1000 feet, another first. Since this installation, McDermott has received a contract for design, fabrication, and installation of a 968 foot jacket to the placed in the East Breaks field of the Gulf in 1981. This jacket's height will be second only to Cognac.

2. Middle East

The Middle East's operations have been active, but not at a high rate. The one major project undertaken is the "Dugas" onshore/offshore gas gathering and processing facility at Dubai, U.A.E. Other contracts awarded to McDermott are for facilities in India and Egypt.

3. Southeast Asia

This area has the greatest potential and expectations for increased activity are high. Gas Fields with the biggest potential are located in Thailand, the Northwest Shelf of Australia, and the Philippines. The biggest project currently is the Conoco Udang platform, located in the South China Sea.

4. North Sea

Although interest in the area is high, activity is waning. This is in part due to policies of the governments of North Sea countries that have created uncertainty about the economies of production. The hope is that the new, more conservative United Kingdom government will provide a more conducive climate for oil and gas development. The major fabrication yard at Ardersier, Scotland has three major projects in progress.

5. West Africa

Major offshore pipelaying and installation projects are being performed off the coasts of Nigeria, Zaire, and Angola.

6. South America

Offshore oil fields recently undertaken are off the coast of Brazil, while a dual 38-inch, 23-mile pipeline was recently completed linking Margarita Island to mainland Veneuela, one supplying fresh water to the island.

H. McDERMOTT'S MARKETS AND COMPETITION

McDermott's principal customers for its offshore contracting operations consist of the larger domestic and international oil and gas companies. Most of McDermott's customers contract for the design, construction and installation of specific platforms, pumping stations or processing facilities. Contracting is done on a fixed price, cost plus a day rate basis. Contracting undertaken in foreign areas of operation generally call for payment in United States dollars.

McDermott's chief competitors are corporations such as Halliburton, Schlumberger Ltd., Helmerich & Payne and Stewart & Stevenson Service, Inc., among others. Exhibit IV-4 shows the comparative financial data, for fiscal year 1979 of the leading companies within the Oil Services and Equipment Industry.

I. BENEFITS OF MERGER WITH BABCOCK & WILCOX CO.

As stated in the August 9, 1978 New York Times, "J. Ray McDermott & Company reported yesterday a 29.2 percent drop in its earnings for the first fiscal quarter ended June 30, to \$32.3 million, or 76 cents a share, from \$45.6 million, or \$1.45 a share, in the similiar three months last year.... due to the continuing decline in earnings of McDermott's marine construction business."

COMPARATIVE FINANCIAL DATA

fiscal year 1979

£ 2.1	Revenues (\$ Mill	L)	PAR	Net Income (\$ M	lill.)	RANK	Profit Margin (%) AMOUNT	RAN	Return on Capital ((%) 4MOURT
	Halliburton Co McDermott & Co Schlumberger Ltd Baker Int'l Hugnes Tool Co Santa Fe Int'l Zapata	3,144 6 2,583.9 919 0 659 4 547 6 520.8		Halliburton Co	397.0 93.0 77.2 69.7 55.8 52.2	1 2 3 4 5 6 7 7	Heimerich & Payne Schlumberger Ltd Ocean Drilling Tidewater Inc Rowan Cos Gearhart-Owen Parker Drilling	28.6 27.1 +24.1 23.7 23.6 23.6	1 2 3 4 5 6	Marathon Mfg	15.9 15.2 14.3 14.0
11	I Ocean Drilling	. +06.0 . +389.4 . 256.8	10	1 Ocean Drilling	31.2 30.3 27.5	9 10 11	Hughes Tool Co	20.4 19.6 19.4	8 9 10 11	Parker Drilling Tidewater Inc Stewart & Stevenson	10 6 +10.2 . 9.1
í	3 Tidewater Inc	216.7 215.7 211.3	1. 1. 1.	Marathon Mfg Reading & Bates Rowan Cos	24.8 22.6 22.6	12 13 14 15	Secto Inc	18.3 17.7 16.8	12 13 14 15	Rowan Cos Santa Fe Int 7 Sedeo Inc	. 8.3 . 7.9 . +7.0
1 1 1	7 Rowan Cos 8 Texas Int'l	. 143.7 . 141.0 . 126.4	11 11 11 20	7 Gearhart-Owen 8 Global Marine 9 Stewart & Stevenson.	13.6 8.2 7.8	17 18 19 20	Zapata	12.9 9.9 8.7 5.8	17 18	Western Co., N.A Ocean Drilling	. 5.1 . 44 . 4.3 . 3.5
	1 Gearhart-Owen 2 Kenas Corp	106.1	2	1 Kenau Corp	3.9	21 22	Global Manne	4.0	21 22	Zapata	0. 8
	Gross Plant (\$Millions)			Net Plant (\$Millions)			Return on Net Plant (%)			Working Capital (\$Millions)	
2484	Haliburton Co	1299 S	PAME	Halliburton Co	1,323.0	RANK	chlumperger Ltd	SS.5	PANE	10794h* Haliburton Co	196,2
2	Schlumberger Ltd	1.6170	;	McDermon & Co	920.8 904.4	2 5	mith let 1	40 8 39 0	2	Schumberger Ltd McDermoti & Co	2 E T
4	Santa Fe Int'l	524.8 419.1	ă.	Zapaia Santa Fe Int'l	635.7 571.6	4 0	lalliburion Co	31 4 30 D	4	Rame (nt')	-78 0
é	Ocean Drilling	812.9	Í	Ocean Driling	548 6		Sarathon Mfg	28.9	۰	Hurbes Tool Co	255.3
į	Reading & Bates	497 6	•	Sedco Inc	335 3	8 1	lemence & Payne	28 0		Same Fe Int I	147 4
:0	Baker Int'l	462.9 334.2	10	Reading & Baus	315 5	9 B	aker Ini 1	23 O	10	Marathon Mfg Sedan Inc Paraer Drilling	5: 0 •62.4
!!	Parker Drilling	330 B	11	Rowan Cos Western Co., N.A. Hugnes Tool Co	258.1 244.	11 7	dewater inc	*13.5	ij.	Penur Driling	613
13	Rosas Cos	108 1	15		122.2	12.5	Ac Dermott & Co	10.1	13	Stream & Stevenson Rembag & Bates	50 6
14	Tides ater Inc.	*301.9 284.5	15	Giobal Manne	220 2	٠, 5	anta Fe IntT	*16		Tiges alter Inc	36
16		185.2	16	Smith Int'l	34.0	. e s	lunan Con	8.1	16	Howench & Payne	36.2
18	Heimerich & Payne Texas Int'l	163 8	18	Texas Int'l Helemenco & Pavne	127			::	1.	Manager Co. N.A	331
14	Marathon Mfg	147.7	19	Marainon Mfe	15 0		cading & Bales caan Drilling	5 0	•	Team Int'l	13.1
20 21	Gearhart-Owen Kenss Corp	61.2 31.3	20 21	Gearhart-Owes	43 3 29 0	بيد	anna Warne	0.9	20	Domit Drilling Keeps Core	160
:2	Stewart & Stevenson	26.2	22	Stewart & Stevenson	19 €	<u> 12 -</u>	tum int	•••	11	Giosal Manne	11.0
PANK	Price-Earnings Ratio	D AMGUNT	RAME	Yield (%)	ewount	144E	urt Term Price Scor	re mount	L TAME	.ong-Term Price Scot	re awount
- !	Santa Fe Int'l	28.1	1	McDermott & Co	5.2		- em Co. N.A	121 4	1	German-Ones	2706
į	Ocean Drilling Geardart-Owen	20.5 17.5	1	Reading & Bass	3 2		acets	121 3		Variation Wife	203 2
4	Schlumberger Ltd	17.5	•	Sanus Fe Int?	2.3	4.5	tewart & Siz-enson	117.2	- 4	Roman Cos	203 0
3	McDermott & Co	14.6	5	Hailmurton Co	12		laker Int'i Pohel Manne	110 0		Paner Dniling	176.1
_	Baser Int1	12.5	:	Smith Int'l.	1.6	٠,	arest Dalling	1.28	•	Schumberger Ltd	:52.e :51.6
8	Sedeo inc	11.7 11.0	1	Stewart & Stevenson	1.6	• (cean Driving	1122		Sment int! Seesa Fe lot'l	147 C
10	Heimench & Payee	10.9	10	Ocean Drilling	i 5	10 H	luchen Tool Co	110.9	10	Baner Int 1	:44 5
11	Rowan Cos Halliburtos Co	10.5	11	Schlumberer Lad	14	11 H	leimench & Pavne	110.	- 11	Gresi Manne Zumasa	11 9 5 11 1
13	Smith lat?	9.5	13	Zapata Baker Int 7	i. i	13 5	chiumberger Ltd.	110 3	- 13	Haliburton Co	112.4
14	Parker Drilling	9 O 8.9	14 15	Global Marine	1.2	14 8	Invan Cot	104 7	15	M±Dermoti & Co	45 : 30 6
ie	Tidewater Inc	L.7	16	Gearman Owes	0.7	16 8	Latiburton Co	97 7		Ocean Drilling	130
17	Hughes Tool Co	1.6 1.3	17	Heimench & Payne	0.7		dewater Inc	94) 83 (17	Haghes Tool Co Kazas Corp	
19	Reading & Bates	8.3	19	Parker Dolling. Western Co., N.A.	0.7	19 5	1cDermort & Co	77.4	19	Remaing A. Bates	
20	Marathon Mfg	6.2 6.6	20 21	Kenas Corp	0.3	20 5	anto Fe Int'l	74 0	20	Srewart & Sievenson.	
12	Texas Int'l		22	Texas Int'l			exas Int'l			Timewater Inc	
	Average	12.1		Average	1.7		Average	106.1	-	Average.	151 ;

Exhibit IV-4

Source: Moody's Investors Service, Moody's Investor's Facts Sheets, 1979

This quote, from the New York Times, typifies why
McDermott wanted to merge with B&W. After the friendly
merger between the two companies, McDermott's profits were
at record levels, due largely to B&W. Even B&W's operations,
however, could not offset the decline in earnings within
McDermott. As seen in the financial statements, McDermott's
price/earnings ratio was about 4 to 1 at the time of the
merger war. Both the companies' businesses are related, so
by being able to merge with B&W, McDermott could hope to
make its stock more attractive to the investor.

What McDermott hoped to gain from the acquisition of B&W is obvious. B&W, a maker of power plants for electric utilities, had a big piece of a market that was generally expected to grow steadily over the next 10 to 20 years. McDermott was flush with cash but needed to diversify in time to soften the blow from the expected decline in the offshore construction business.

In addition, with McDermott's financial picture growing steadily poorer, they were becoming a prime target for a takeover themselves, perhaps by a conglomerate of U.T.C.'s size. With the company experiencing financially hard times, a company such as United Technologies could approach McDermott's shareholders and make them a very substantial offer. These two reasons are the basis on which McDermott sought to merge with B&W.

J. CHAPTER SUMMARY

This chapter discussed the business of B&W and McDermott. As seen B&W is primarily concerned with the power generation systems and tubular products, while McDermott is involved in the marine construction services. B&W hoped to find a favorable "corporate parent" in McDermott in light of U.T.C.'s attempted acquisition. Conversely, what McDermott hoped to gain from the merger was help in their financial woes, as a result of their decreased marine construction business. In the next chapter the two companies' financial position will be analyzed by reviewing the trends of key financial ratios, and in some instances comparison to industry standards.

V. TREND ANALYSIS

A. GENERAL

One set of very useful and important tools in financial analysis is the use of ratios. Ratios are simply a means of showing the relationships between different key financial figures within a company's financial statements. The Babcock & Wilcox Co. (B&W) and J. Ray McDermott & Co., Inc.'s (McDermott) financial statements are included in Appendixes A and B, respectively. Some of the ratios are general in nature and apply to any business operation; while others are tailored specifically to a certain industry. Within the succeeding sections these ratios will be described and analyzed with respect to B&W and McDermott. For each ratio one example has been shown to demonstrate the mechanics in computing these ratios.

1. Financial Ratios

- a. Short-term Liquidity Ratios
 - (1) Current Ratio

The ratio of current assets to current liabilities gives a measure of the extent to which current assets are financed by more permanent sources of funds.

This ratio is computed as follows:

Current Ratio = Current Assets
Current Liabilities

Example: For calendar year 1977, B&W's current ratio equals (879,500) + (699,200) or 1.26.

(2) Acid Test Ratio. Also called the quick ratio, this ratio shows the company's ability to pay current liabilities without liquidating its inventory. A ratio of greater than 1.0 is generally desired. This ratio is computed as follows:

Acid Test = Cash + Receivables + Short-Term Investments
Current Liabilities

Example: For calendar year 1977, B&W's acid test equals (63,300 + 80,300 + 233,100+215,700) ÷ (699,200) or 0.85.

(3) Average Collection Period. This ratio measures the effectiveness of its credit granting and collection activities. This ratio is computed as follows:

Average Days Sales = $\frac{\text{Net Sales}}{\text{Days in Year}}$

Average Collection Period = Net Receivables
Average Days Sales

Example: For calendar year 1977, B&W's Average Collection Period equals (233,100,000) ÷ (5,143,013.7) or 45.3 days.

- b. Profitability Ratios
- (1) <u>Profit Margin</u>. This ratio, which relates only to the income statement, simply expresses the percent of each sales dollar, on the average, that represents profit. This ratio is computed as follows:

Profit Margin = Net Income after Taxes
Net Sales

Example: For calendar year 1977, B&W's profit margins equals (61,800) ÷ (1,977,200) or 3.3 percent.

(2) <u>Earnings Per Share</u>. Earnings per share provide a measure of the profitability that can be readily adjusted for the number of shares owned. This ratio is computed as follows:

Earnings Per Share = Net Income After Taxes

Average Number of Shares of
Common Stock Outstanding

Example: For the calendar year 1977, B&W's earnings per share equals (61,800,000) ÷ (12,213,391) or \$5.06.

- c. Long-Term Solvency and Equity Position
- (1) Total Debt To Total Assets. Called the debt ratio, this ratio measures the percentage of total assets provided by all creditors. It measures the riskiness of the company from the lenders viewpoint. This ratio is computed as follows:

Debt Ratio = $\frac{\text{Total Debt}}{\text{Total Assets}}$

Example: For the calendar year 1977, B&W's debt ratio equals (876,500) + (1,309,700) or 66.9 percent.

(2) Long Term Debt To Capitalization. Total capitalization equals long-term debt plus owners equity. This ratio shows the importance of long-term debt in the

total long-term financing of the company. This ratio is computed as follows:

Long-Term Debt to Capitalization = Long-Term Debt
Total Capitalization

Example: For the calendar year 1977, B&W's ratio equals (147,000) ÷ (147,400 + 26,800 + 89,500 + 351,700) or 23.9 percent.

(3) Owner's Equity To Total Liabilities. This ratio summarizes the relationship between equity and total liabilities and reflects the company's reliance on debt in financing its operations. The ratio is computed as follows:

Owner's Equity to Total Debt = $\frac{Owner's Equity}{Total Liabilities}$

Example: For the calendar year 1977, B&W's ratio equals (433,200) ÷ (876,500) or 49.4 percent.

(4) Owner's Equity To Total Equities. This ratio indicates the relative amount of total resources provided by the owners of the company to the company as a whole. The ratio is computed as follows:

Owner's Equity to Total Equities = Owner's Equity
Total Equity
(i.e. liabilities
plus owners's equity)

Example: For the calendar year 1977, B&W's ratio equals (433,200) ÷ (1,309,700) or 33.1 percent.

(5) Net Income To Net Working Capital. Net working capital represents the cushion available to the business for carrying inventories and receivables, and for

financing day-to-day operations. This ratio could also be considered a measure of operating performance as well since it does include net income. This ratio is computed as follows:

Net Income to New Working Capital = $\frac{\text{Net Income After Taxes}}{\text{Net Working Capital}}$

Example: For the calendar year 1977, B&W's ratio equals (61,800) ÷ (180,300) or 34.2 percent.

d. Market Tests

(1) Price/Earnings Ratio. This ratio measures the relationship between the current market price of the company's common stock and its earnings per share. It therefore is an indicator of the future potential of the stock. This ratio is computed as follows:

Price/Earnings Ratio = Current Market Price Per Share Earnings Per Share

Example: For the calendar year 1977, B&W's price/earnings ratio equals $(60\ 1/2\ \div\ 5.06)$ and $(28\ 1/4\ \div\ 5.06)$ or a range of 11.9 to 4.6.

(2) <u>Dividend Yield Ratio</u>. This ratio measures the current return to the investor, against the cost of investment as indicated by the current market price per share. This ratio is computed as follows:

Dividend Yield Ratio = Dividends Per Share
Market Price Per Share

Example: For the calendar year 1977, B&W's dividend yield ratio equals $(3.93 \pm 60 \ 1/2)$ and $(3.93 \pm 28 \ 1/4)$ or a range of 6 to 14 persent.

e. Asset Utilization

(1) Sales to Inventory. This ratio is a means of looking at how fast a company's inventory is turning into sales. This ratio is computed as follows:

Sales to Inventory = $\frac{\text{Net Sales}}{\text{Inventory}}$

Example: For the calendar year 1977, B&W's ratio equals $(1,877,200 \div 287,100)$ or 6.54 times.

(2) Net Sales to Net Working Capital. This ratio provides a measurement of how effectively the company is turning its working capital and the margin of its operating funds. This ratio is computed as follows:

Net Sales to Net Working Capital = Net Sales Net Working Capital

Example: For the calendar year 1977, B&W's ratio equals (1,877,200) ÷ (180,300) or 10.41 times.

(3) Net Sales to Fixed Assets. This ratio measures the extent to which the fixed assets of the company are contributing to its revenue. This ratio is computed as follows:

Net Sales to Fixed Assets = Net Sales
Net Fixed Assets

Example: For the calendar year 1977, B&W's ratio equals $(1,877,200) \div (379,900)$ or 4.94 times.

(4) Net Sales to Total Assets. This ratio is frequently called asset turnover. It provides as indication as to the size of asset commitment required for a given level of sales, or conversely, the sales dollars generated for each

dollar of investment. 51 This ratio is computed as follows:

Asset Turnover = $\frac{\text{Net Sales}}{\text{Total Assets}}$

Example: For the calendar year 1977, B&W's asset turnover ratio equals (1,877,200) ÷ (1,309,700) or 1.43 times.

f. Return on Investments

(1) Return on Equity. This ratio relates the amount of income to the amount of investment that was committed to earning that income. It is considered one of the true tests of a company's profitability picture. The ratio is computed as follows:

Return on Equity = $\frac{\text{Net Income After Taxes}}{\text{Owner's Equity}}$

Example: For the calendar year 1977, B&W's equity ratio equals (61,800) ÷ (433,200) or 14.3 percent.

(2) <u>Return on Assets</u>. This ratio relates income to the amount of total assets used. It measures management's performance in using all of the resources available to them. The ratio is computed as follows:

Return on Assets = $\frac{\text{Net Income Before Interest and Taxes}}{\text{Total Assets}}$

Example: For the calendar year 1977, B&W's return on assets ratio equals (126,000) ÷ (1,309,700) or 9.6 percent.

B. ANALYSIS

Exhibits V-1 and V-2 are summary tables of the financial ratios of B&W and McDermott, respectively. Wherever possible industry norms for each company are presented for comparison. Standards for all the ratios are difficult to obtain due to the difficulty in comparing B&W and McDermott with any other companies, especially since their merger. It is the author's intention to show the individual companies' financial trends and compare them whenever possible to industry standards as published by Dun & Bradstreet, Standard & Poor's and Moody's Investors Service.

1. Short-Term Liquidity

In looking at the ratios dealing with liquidity, it appears that while B&W's trend have been fairly consistent over the past five years, they appear to be lower than industry norms. Conversely, while McDermott's trends in average collection period has fluctuated tremendously, all their ratios are greater than their industry standards. For the collection period trends no standard was available for McDermott's industry. The current and quick ratios, displayed in Exhibits V-3 and V-4, of both companies have been steady over the time period. While McDermott's trend has been comparable to its industry norm, B&W's has not. What these trends seem to indicate is that B&W's cash and

The Babcock & Wilcox Co.

Summary of Financial Ratios

for calendar year ending 31 December

I	1977 ndustry	1977	1976	1975	1974	1973
Current Ratio	2.2	1.26	1.23	1.39	1.63	1.32
Acid Test Ratio	1.0	0.85	0.71	0.78	0.93	0.79
Average Collection Period (Days)	49	45.3	36.9	48.5	53.6	60.7
Profit Margin	3.0%	3.3%	3.1%	2.7%	2.7%	2.1%
Earnings Per Share	\$3.50	\$5.06	\$4.37	\$3.49	\$2.82	\$1.82
Total Debt to Total Assets		66.9%	63.0%	67.0%	67.7%	62.3%
Long Term Debt to Capital	25.0%	23.9%	17.1%	29.5%	40.1%	19.9%
Owner's Equity to Total Liabilities		49.4%	58.7%	49.2%	47.8%	60.5%
Owner's Equity to Total Equity		33.1%	36.9%	32.9%	32.3%	37.7%
Net Income to Net Working Cap.	16.6%	34.2%	38.6%	19.2%	12.3%	16.4%
Price/Earnings Ratio	8.4 - 16.7	11.9 - 5.6	8.4- 4.3	7.8- 3.9	13.2- 4.1	20.7 - 11.6
Dividend Yield Ratio	2.5%-5%	6%-14%	3%-6%	3%-6%	28-78	28-48
Net Sales to Inventory	6.6	6.54	5.45	4.56	4.15	4.80
Net Sales to Net Working Cap.	5.2	10.41	12.29	7.10	4.59	7.91
Net Sales to Fixed Assets		4.94	4.71	4.71	4.38	4.20
Net Sales to Total Assets	~-	1.43	1.51	1.38	1.21	1.26
Return on Equity	13.0%	14.3%	14.2%	12.4%	10.8%	6.9%
Return on Assets	6.5%	9.6%	8.9%	7.3%	5.6%	4.4%

Exhibit V-l

Source: Dun & Bradstreet, Key Business Ratios, 1977

J. Ray McDermott & Co., Inc.

X

Summary of Financial Ratios for fiscal year ending 31 March

	0701-7701							
	Industry	1979	1978	1977	1976	1975	1974	1973
Current Ratio	1.70	1.82	1.81	2.08	1.68	1.71	1.65	1.64
Acid Test Ratio	1.0	1.49	1.47	1.95	1.38	1.28	1.37	1.37
Average Collection Period (Days)	1	70.1	151.0	76.8	95.7	120.7	124.2	93.5
Profit Margin	14.0%	2.96%	12.29%	15.66%	14.53%	10.29%	7.52%	4.79%
Earnings Per Share	\$4.00	\$1.94	\$5.02	\$6.11	\$4.89	\$2.46	\$1.25	\$0.63
Total Debt to Total Assets	1	61.6%	61.3%	49.6%	54.0%	56.9%	48.0%	53.6%
Long-Term Debt to Capitalization	25.0%	27.8%	28.0%	19,3%	24.8%	33,7%	21.3%	34.78
Owner's Equity to Total Liabilities	1	62.0%	63.0%	102.0%	85.0%	76.0%	108.0%	87.0%
Owner's Equity to Total Equity	1	38.4%	. 38.7%	50.5%	45.9%	43.1%	51.9%	46.48
Net Income to Net Working Capital	32.1%	10.7%	19.4%	41.4%	62.3%	41.2%	29.1%	24.5%
Price/Earnings Ratio	7.24-15.13	13.4	5.0	4.5	4.4	7.9	15.7	20.9
Dividend Yield Ratio	1.5%	3.9%	2.9%	2.1%	1.68	1.5%	1,3%	1.9%
Net Sales to Inventory	!	9.18	3.89	14.69	9.54	99.9	3.94	7.61
Net Sales to Net Working Capital	7.73	3.61	1.58	2.64	4.28	4.02	3.87	5.11
Net Sales to Fixed Assets	!	3.42	1.45	2.63	2.37	1.91	1.53	1.55
Net Sales to Total Assets	!	0.95	0.41	0.89	0.99	0.87	0.74	0.79
Return on Equity	12.5%	7.3%	12.9%	27.5%	29.8%	20.7%	11.6%	8.1%
Return on Assets	!	2.8%	5.0%	13.9%	13.78	8.9%	6.0%	3.8%

Exhibit V-2

Dun & Bradstreet Key Business Ratios, 1977 Moody's Investors Service, Moody's Investors Fact Sheet, 1979 Source:

marketable securities, without its inventories, does not provide a large enough safety margin to cover current liabilities.

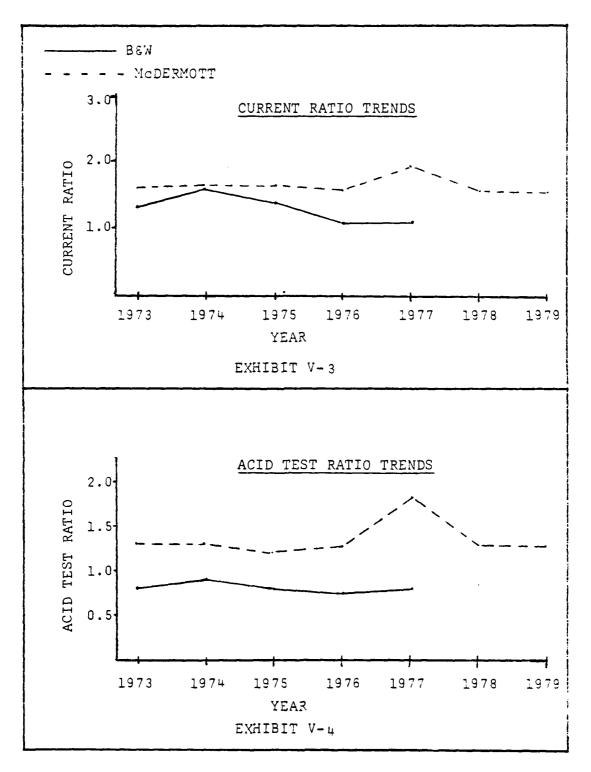
In conclusion, although there is no industry norm to compare McDermott's collection period against, overall they appear very liquid. Conversely, B&W's liquidity picture is not as bright. Their trends are, however, fairly stable, and their collection period trend is comparable to the norm which shows a good credit and collection policy towards their customers.

2. Profitability

The two profit ratios, displayed in Exhibits V-6 and V-7, are profit margin and earnings per share. With respect to its profitability, it seems that B&W has an impressive operating performance over the five year period, with increased sales, net income and earnings. B&W's profit margin has ranged between 2.1 to 3.3 percent, which is well within the industry standard of two to four percent.

The second trend, earnings per share, has been increasing, up \$3.24 from 1973 to 1977. This trend is attributable to the significant increase in net income, up 179 percent, with only a 0.5 percent increase in the number of shares outstanding.

The reverse holds true for McDermott. Both of their trends have taken substantial down-turns since 1977. Due largely to the spotty offshore construction market,



especially in the foreign operations area, McDermott's sales revenues and profits have taken a dramatic turn for the worse since 1977. As reported in McDermott's 1979 annual report, "the temporary surplus of worldwide oil productability over demand in 1977 and 1978 tended to restrain oil prices and to discourage both oil companies and producing-country governments from pushing the development of promising discoveries. The construction capacity built by McDermott's industry during the peak demand years of 1975 and 1976 contained to exceed the demand for services." 52

In these ratios, the decline in the trend started in 1977. The company's sales revenues have increased since 1977 due largely to B&W's consolidation into the financial statements. In 1978 revenues increased over \$69 million due largely to the culmination of five years of growth of worldwide hydrocarbon development in offshore areas. But the 1979 increase was attributable to B&W's operations in the amount exceeding \$2 billion. This figure was offset by McDermott's marine and onshore construction operations' revenues which decreased by over \$190 million. The majority of this decrease was from its foreign operations.

Since 1977 McDermott has experienced increases in its costs and expenses due to lower utilization of company-operated equipment in 1977, and in 1978-1979 due to the relocation of certain operations of one of the company's foreign areas and warranty and other related design and fabrication problems

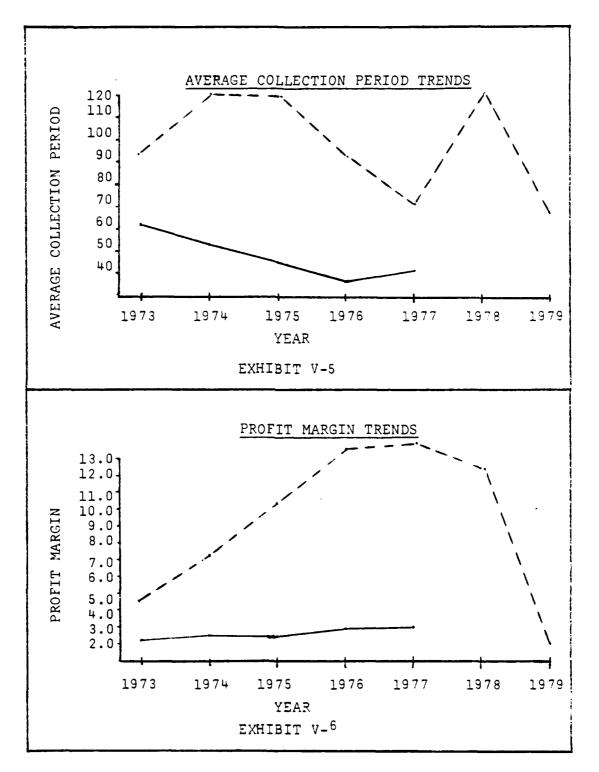
experienced in certain nuclear contracts.⁵³ This lower utilization is the result of the continuation of a worldwide slowdown in hydrocarbon development in offshore areas and thus an increase in foreign competition. The company has stated that it expects this lower utilization to continue through fiscal year 1980.

3. Long-Term Solvency and Equity Position

While section 1 of this analysis dealt with liquidity, or short-term ability to meet financial obligations, this section looks at its long-term picture of meeting obligations, its solvency. There are five ratios within this section, displayed by Exhibits V-8 through V-12.

shows that all the trends have been fluctuating over the five year time period. The long term debt to capitalization and net income to net working capital trends have been fluctuating close to industry norms, with the latter increasing above the norm since 1975. However, B&W's debt ratio has been increasing slightly from 1973 to 1977. The major contributing factor to the fluctuation in the debt ratios is the fact that long-term debt has been decreasing, down 41 percent from 1974 to 1977.

Thus long-term financing has become a smaller part of the company's total financing picture. In view of the increasing prime interest rates on short-term notes, this decrease in long-term financing shows a less than preferable

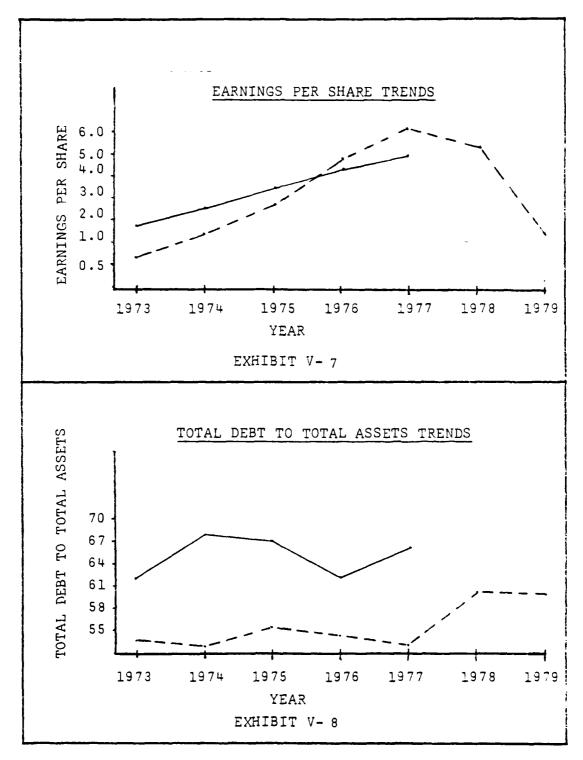


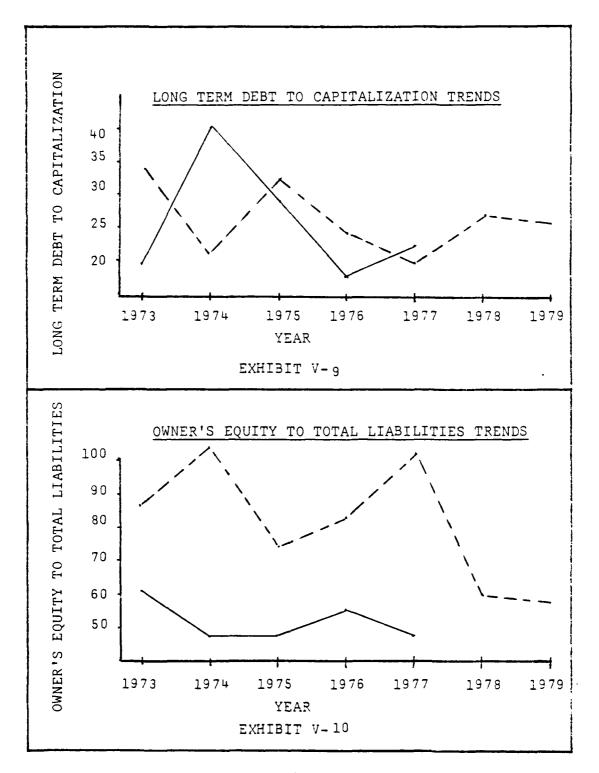
trend for the company. The significant increase in notes payable in 1977 was attributed to the fact that the company converted borrowings on certain bank lines of credits for its Canadian subsidiary B&W Canada Ltd. to a \$25 million note agreement, payable beginning December 1, 1982.⁵⁴

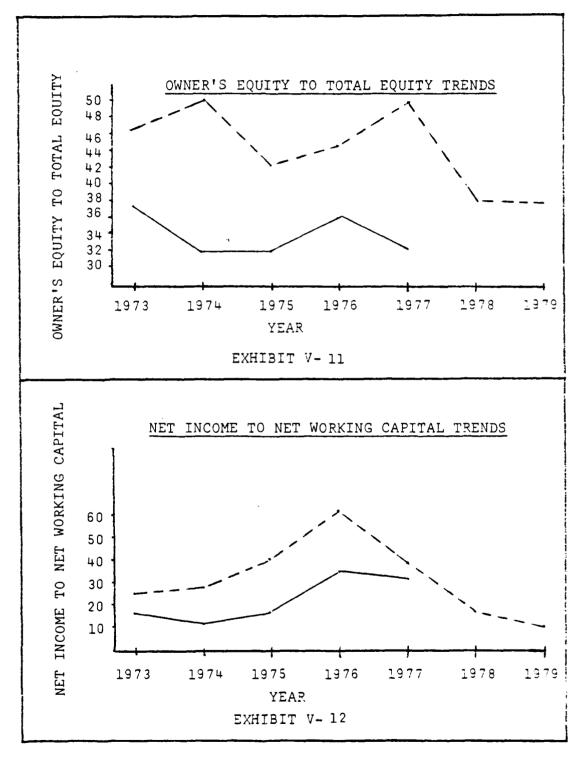
There was, however, an increase from 1976 to 1977 of \$54 million in long-term financing. This increase was attributed to 8-1/2 percent notes, payable beginning January 1, 1983.

The next two ratios, owner's equity to total liabilities and owner's equity to total equity, have been fairly
constant, with only minor fluctuations during the five year
period. The 1976 peak in the two trends was due to a reduction on total liabilities for the year. This was attributable
to reduced bank borrowings of short-term notes, and the
repayment of an outstanding term loan of \$100 million. 56

As of 1977, 49.4 percent of the company's assets were financed by the owners, down 11 percent from the 1973 figure. This trend seems to be favorable from a profit standpoint. Financing by owners as compared to the creditors is far less risky over the long run. Thus, this consistent trend for B&W shows a favorable safety factor. McDermott's trends, like B&W's, have been fluctuating from 1973 to 1979. During the years 1978 and 1979 the company's debt ratio reached 61 percent. Contributing to this increase in total







liabilities is the substantial increase in provisions for warranty expense, accured liabilities, accounts payable and long term debt.

With respect to the reliance on debt to finance its operations, especially long term financing, it appears that McDermott is not overly committed. However, marked increases in long term debt occurred in 1975 and again in 1978. The 1975 increase was due to the issuance of three long term contracts, an 8.9 percent note due in 1984; a 9.7 percent sinking fund debenture due 1999 and a revolving credit agreement note totalling \$50 million. To Together these three notes totalled \$135 million. In 1978 prior unsecured debts of B&W totalling \$131 million, and revolving credit notes payable totalling \$177 million accounted for a large majority of the increase. These two time periods do however coincide with increases in the prime interest rates on short term loans.

The final area of concern is that of McDermott's net income to net working capital. Since 1976 there has been a steep decline showing an unfavorable picture in its financing of day-to-day operations. Although net working capital increased slightly, net income decreased. Contributing to this decline was the rapid increase of costs and expenses and the large increase in interest expense (66 percent and 94 percent in 1978 and 1979, respectively). These interest

expense increased resulted from consolidation of interest expense on debt carried by B&W's divisions, and also the additional borrowings related to the investment in B&W.

4. Market Tests

There are two ratios within this section that deal with the company's "market worth" of a share of its stock. The first is the price/earnings ratio and the second is the dividend yield ratio. These market tests attempt to relate the current market price of a share of stock to some indicator of the profit that might accure to the investor. These ratios are displayed by Exhibits V-13 and V-14.

Both of B&W's ratios are well within the norms for their industry. B&W's price/earnings ratio trend had been on the decline for several years, but turned around in 1975 and since had been increasing. From 1973 to 1977 the company's earnings per share increased by \$3.24. The reason for the drop in the P/E ratio from 1973 to 1975 was a marked drop in the price per share of common stock during the years 1974 and 1975. This trend is comparable to the stock market in general during this time period. The economy was in a recession and therefore stock market prices were generally in a depressed state. The major reason for the significant increase in the stock price in 1977 was the merger efforts put forth by both United Technologies and McDermott.

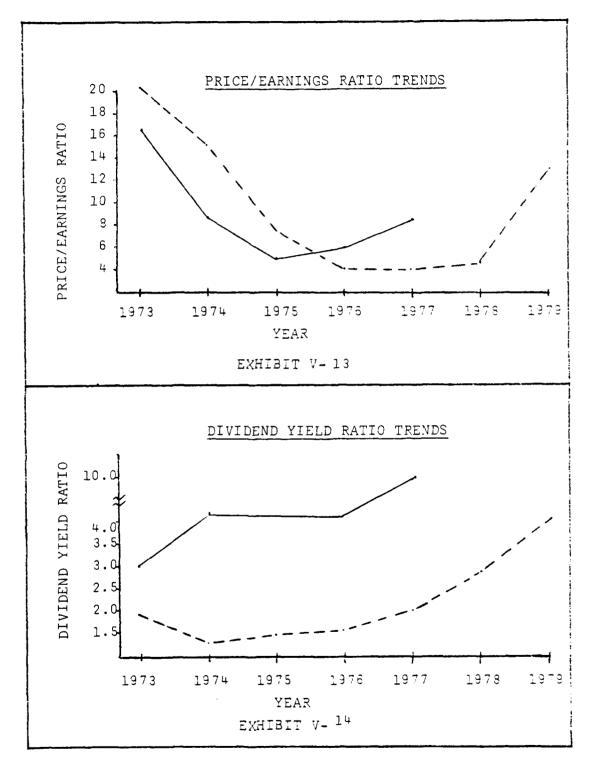
The dividend yield ratio shows the current return to the investor against his investment. B&W's ratio trend has been increasing over the five year period. Their dividends per share from 1973 to 1975 stayed at \$.80, but since then have increased to \$3.93. The large increase in 1977 was attributed to the special \$2.50 dividend declared in August by B&W's board of directors, in the midst of the bidding war by U.T.C. and McDermott.

Jointly it appears that the market value of a share of B&W stock is favorable, with an increasing trend over the several years prior to its merger with McDermott.

In contrast, McDermott's market picture is questionable. Since 1977 McDermott's earnings per share have decreased due to the decline in net income. In addition the company's dividend yield has also been increasing. While this may seem good at first glance, it would appear that during this low period of productivity and sales, that the company could be plowing these funds back into the company instead of increasing its dividends. In both ratios, McDermott's trend has not been comparable with the industry norm, over the years 1975 to 1979.

5. Asset Utilization

In general, the area of asset utilization tries to show how well a company is managing its assets. Are the assets being utilized to increase profits, or are they becoming dormant and thus not contributing at all? In this



area of analysis, four ratios will be discussed, all of which relate to the net sales of the company. These ratios are dispalyed Exhibits V-15 through V-18.

The general trend of all B&W's ratios is favorable, with various fluctuations during the five year period. Sales to inventory and sales to total assets trends have been fairly flat and increasing slightly. This shows a favorable asset commitment towards producing sales revenues. It also appears that B&W has not changed this asset committement policy dramatically since 1973.

The one trend that has not fluctuated, but rather increased steadily is the net sales to fixed assets. Over the five year period the trend has increased 17 percent, with sales increasing 77 percent, but fixed assets increased only 50 percent. The reason appears to be that while plant, property and equipment had been increasing by a lesser rate each year, from 11.8 percent to 7.8 percent in 1977; depreciation on these fixed assets had been increasing faster. Accumulated depreciation increased 8.5 percent in 1973 but increased by 10.1 percent in 1977.

The most erratic trend was in the sales to net working capital ratio. Although B&W's figures were higher than the industry standards of 5.2 times, in 1974 and 1977 there were substantial declines. During these two years B&W sales increased 20 and 11 percent respectively. In 1974 sales were up even though it was a year in which price controls

were in effect for a number of months, inflation drove up costs, interest rates rose, and material and fuel shortages were widespread. However, the ratio decreased due to the large increase in new working capital. The 1974 net increase in working capital was \$143.5 million, while in years 1973, 1975 and 1976 there was actually a decrease. The major reason for the increase was due to conversion of current notes to noncurrent in the sum of \$155 million.

In 1977, sales rose 11 percent, up to \$1.877 billion, and at the same time net income reached a record high of \$61.8 million, and increase of 16 percent from 1976. The record increases resulted from improved performance in B&W's operating division, primarily in steam generating and associated equipment. However, the increased net income and also the additional noncurrent obligation, namely an 8-1/2 percent note totalling \$60 million, caused the net working capital to increase faster than sales, thus the dip in the ratio.

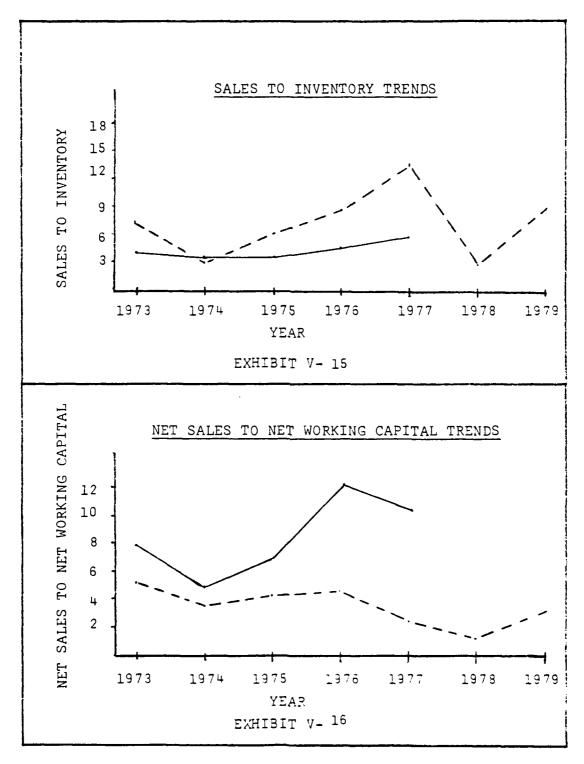
In viewing McDermott's trends, it is apparent that their total asset committment towards each sales dollar hasn't changed substantially since 1973. At the same time two of the trends, involving fixed assets and net working capital are showing unfavorable signs. McDermott's sales to fixed assets trend has been increasing from 1973 to 1977. One explanation for this trend is that the company isn't

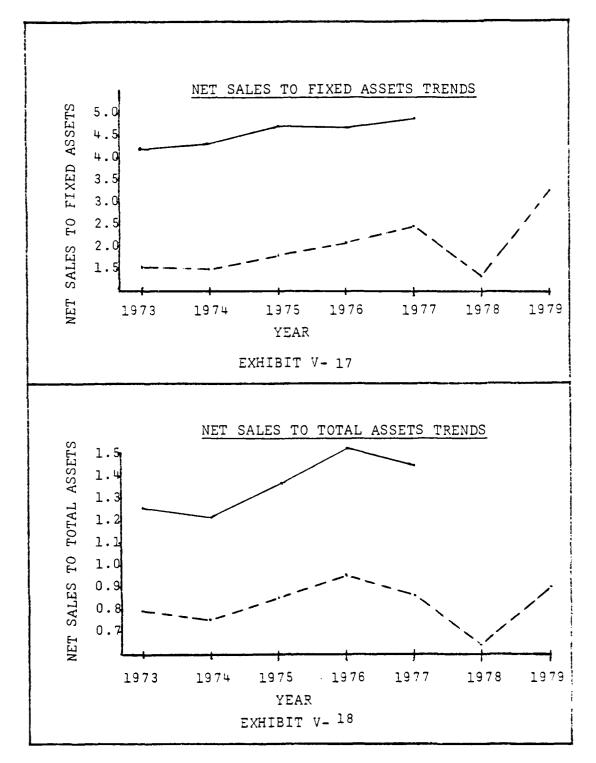
turning over the fixed assets as fast as they should. It would appear that they currently have an aversion to investing in new plants and equipment, due to a lack of incentive within their depressed market.

Another area showing unfavorable signs is sales to net working capital. The overall trend since 1973 has been decreasing, although slightly. It appears that the company cannot favorably turn its working capital into sales. Contributing factors to the increase in working capital are principally the addition of B&W contracts in progress, totalling over \$320 million in both 1978 and 1979; and B&W's addition of its inventories. Although the working capital has been increasing, sales revenues have not increased in the same proportion. The primary reason for reduced sales in the marine construction services business is the increases in oil prices and overall insecurity about the OPEC nations and the Middle East in general. Because of this insecurity there should be an increase in the market for offshore construction. If this happens, McDermott's marine construction services business should become healthier. This in turn should reverse their financial trends for the better.

6. Return on Investment

The last area of analysis deals with the company's profitability picture, specifically its ability to distribute a profitable return to the investors. The two ratios concerned with in this area are return on equity and return on assets. These ratios are displayed in Exhibits V-19 and V-20.



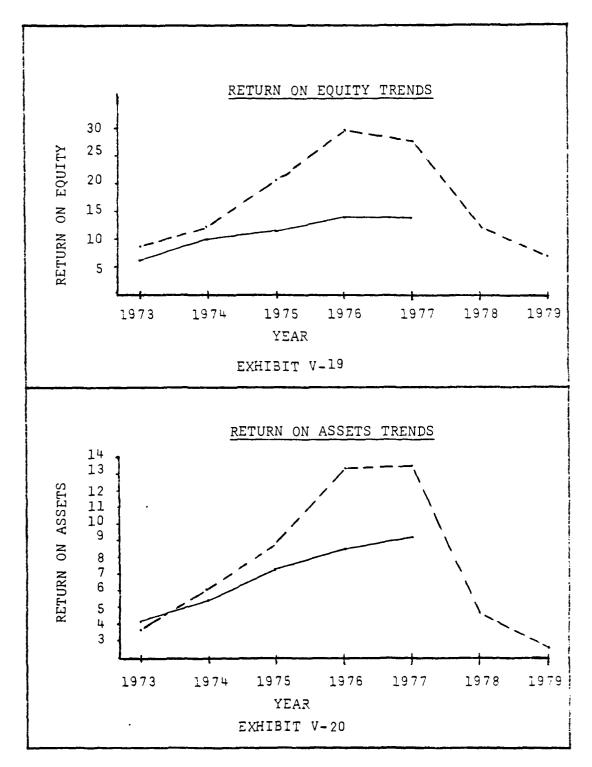


As both the ratios show, B&W's investment return picture is profitable. Its trends are increasing steadily with no fluctuations and comparable to industry norms. In either case, it appears that the investors are gaining a favorable return from B&W for their investment, and that the future tread appears to be the same, if not better.

In the case of both ratios, the reason for the increase was due to rapidly rising net income for the company, faster than either its total assets or investment by the owners have increased. Record sales revenues in both the steam generating and tubular products divisions, along with lower interest expense payments resulted in greater net income. The significant decrease in the interest expense resulted from a combination of substantially reduced average total debt levels and also lower interest rates. This was particularly true in the years 1976 and 1977.

This most favorable profitability picture is one of the contributing factors which interested both United Technologies and McDermott in the acquisition of B&W.

Both McDermott's ratios show marked declines since 1976-1977, due entirely to the decline in net income. These ratios show that McDermott's investors are not in as comfortable a position as they were prior to 1976. The foreign oil market which led to reduced sales and revenues decreased McDermott's net income to a level lower than it had been since 1975. Even with B&W's addition to the



financial picture, the company still is at a crossroad in its corporate life. What McDermott attempted was to diversify into various areas involving the energy field. With the addition of B&W's coal and nuclear power businesses, McDermott will be able to expand into whichever energy field that will provide the resources for the energy needs of tomorrow.

C. CHAPTER SUMMARY

With respect to short-term liquidity, B&W's trends have been fairly consistent, while McDermott's have not. While McDermott's trends have fluctuated they appear close to industry norms, while B&W's appear lower. This latter trend may show a less than desirable safety margin to cover current liabilities for B&W.

While B&W's profit picture was impressive from 1973 to 1977, McDermott's have taken a dramatic downturn since 1977. This decline was due to reduced sales revenues from McDermott's marine construction services business.

Both companies' long-term solvency trends, although fluctuating, appear sound.

From a "market value" standpoint, as of the time of the merger B&W seemed very marketable, while McDermott did not. McDermott's earnings per share have decreased since 1977 due to their reduced sales and decline in new income. In both trends McDermott's figures have not been comparable to the industry norm, for the years 1975 to 1979.

With respect to asset utilization, neither B&W nor McDermott's total asset committment seems to have changed much since 1973. B&W's trends have been increasing, with minor fluctuations. Conversely, McDermott's trends involving fixed assets and net working capital are showing unfavorable signs.

The final area, return on investment, depicts why B&W became an acquisition prize, and McDermott an acquirer. B&W's favorable profitability picture was due to rapidly rising sales and net income. Both its ratios were increasing, and comparable to industry norms. McDermott, however, was not showing a favorable profit picture, due to reduced sales in its marine construction services business.

VI. THE MERGER

The merger on March 31, 1978 between Babcock & Wilcox, Co. (B&W) and J. Ray McDermott & Co., Inc. (McDermott) was not a simple takeover. A major player in the bidding war for B&W was United Technologies Corporation (U.T.C.).

This chapter discusses the aspects of the merger. It commences with a look at U.T.C. in general and why they attempted to takeover B&W. It then addresses the merger itself, the legal battles associated with it, and the financial aspects. It concludes with a proforma look at the combined companies and the benefits of the merger.

A. UNITED TECHNOLOGIES CORPORATION

1. General

U.T.C. is a Connecticut-based conglomerate that designs, builds and sells a variety of high technology products for industrial, commercial and government customers worldwide. U.T.C. comprises nine major operating organizations and a large research center. Its products are grouped into three different categories: power systems, flight systems and industrial products and services.

Within the power systems division, which is organized into two groups--gas turbine and fuel cell operations--products include aircraft engines, industrial gas turbines, rocket motors, engines and boosters.

The flight systems division is involved with aeronautical and space systems and equipment, commercial and military helicopters.

The industrial products and services divisions manufacture air conditioning and energy process equipment, elevators and escalators; automotive products and systems; conductors, controls and devices for the transmission and application of electricity; automotive and industrial diagnostic and test systems, and scientific instrumentation. 58

Major companies that have been acquired by U.T.C., and which comprise a large percentage of their sales revenues, are Pratt & Whitney Aircraft, manufacturers and designers of commercial and military aircraft engines; Otis Elevator Company, manufacturers of elevators and escalators; Essex Incorporated, manufacturers of electrical, electromechanical and electronic products; Norden Systems, who design, develop and manufacture highly advanced electronic systems for use in aricraft, space vehicles and submarines; Sikorsky Aircraft, an international leader in the design of helicopters; and Carrier Corporation, a leader in the production of air conditioning and related products.

2. Financial

In calendar year 1979, U.T.C.'s sales reached \$9,053,358,000, of which 23 percent was from contracts with the United States government. This sales total was an

increase of 133 percent since 1975. During these same five years, reliance on government contracts declined from 33 percent to the 1979 figure.

Other key figures as of 1979 were a net income after taxes of \$325 million, total assets of \$6.4 billion and an earnings per share of common stock of \$6.49.

3. Corporate Philosophy

U.T.C.'s chairman and chief executive officer,
Harry J. Gray, came to the corporation in 1971. Prior to
this he had risen to the number three spot in Litton Industries, Inc., namely senior executive vice-president. Prior
to Gray's arrival, U.T.C. was almost exclusively dependent
on the volatile aerospace market, with roughly half of its
sales to the government. Its commercial aircraft engine
market was losing its virtual monopoly to General Electric
Co., and the company's top management, which was highly
inbred, was about to retire.

what Gray wanted was to reduce U.T.C.'s dependence on government contracts. His way of achieving this was through corporate takeovers. U.T.C. acquired Essex International in 1974, Otis Elevator in 1976, and Carrier Corporation in 1979. As a result, in 1979, the aerospace division accounted for only about 45 percent of revenues, and government work, while increasing 66 percent in dollar volume since 1972, represented only 27 percent of overall corporate sales. 59

4. Interest in B&W

Gray's philosophy towards corporate takeovers was to find companies in the \$500 million to \$1.5 billion sales range that makes products "technologically compatible" with U.T.C.'s, command big market shares, and have management teams that are likely to stay around. He said that he was interested in acquiring "technically based companies where our management capabilities and technical, production, and marketing skills" could be exploited. Areas that Gray identified as logical growth opportunities included the electronics, communications, transportation, energy, and environmental system markets. ⁶⁰

As stated previously, U.T.C. was lured to B&W because of what seemed to be a move toward an increased use of coal and nuclear power. With B&W being a leading producer of nuclear-power systems and cuclear fuel, as well as coalfired boilers, they were of great interest to Gray. B&W's chief competitors in the nuclear field are Westinghouse Electric Corporation and General Electric Company, while Combustion Engineering Incorporated competes with them in both nuclear and boiler equipment sales. As many people close to U.T.C. have stated, Harry Gray wanted to expand U.T.C. into a second General Electric Company. B&W, although smaller than Combustion Engineering, was the prize Gray wanted to win because B&W was "better and Cheaper."

Because of these reasons, in March 1977 U.T.C. notified the Securities and Exchange Commission (SEC) of the

intention to offer to purchase any and all shares of B&W common stock for \$42 per share, nearly \$10 higher than the the current market value. In the ensuing months U.T.C. fought a bidding war with McDermott over B&W. It wasn't until August 25, 1977 that U.T.C. finally dropped out of the bidding war after McDermott offered \$62.50 per share and agreed to pass the entire \$2.50 dividend to the B&W shareholders. Although U.T.C. still felt that B&W was worth bidding for, they felt that the range of bidding was higher than they wanted to go. So ended the acquisition war of the year, and the subsequent merger between McDermott and B&W on March 30, 1978 resulted.

B. ASPECTS AND LEGAL BATTLES OF THE MERGER

The acquisition war started in February 1977 when the directors of B&W and U.T.C. met to discuss U.T.C.'s interest in purchasing B&W. Two days later on February 27, the Federal Antitrust Improvements Act of 1976 became effective. The act required that advance information in connection with certain proposed share acquisitions be given to the Antitrust Division of the Justice Department and to the Federal Tr le Commission (FTC).61

B&W did not make a decision until March 28, when their directors told U.T.C. that they would not consider the offer until after President Carter's proposed energy plan had been issued. This plan called for conversion of existing

AD-A093 556

NAVAL POSTGRADUATE SCHOOL MONTEREY CA
AN ANALYSIS OF THE CORPORATE MERGER BETWEEN THE BABCOCK & WILCO--ETC(U)

SEP 80 R S RUSSELL

NL

Reference of the corporate merger between the babcock a wilco--etc(u)

SEP 80 R S RUSSELL

NL

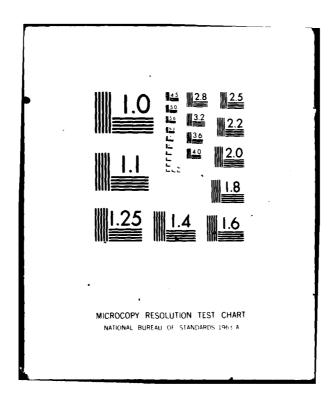
END

ATT

TABLE

TOTAL

T



power plants to coal, which would have been beneficial to B&W. U.T.C. did not wait however, and on the same day made the initial offer of \$42 per share.

During the next week B&W's directors discussed the offer made by U.T.C. During this time U.T.C. sent the mandatory report to the SEC describing their offer. On april 4, B&W said "no" to U.T.C.'s offer and immediately filed a complaint with the Federal District Court of Northern Ohio alleging violations by U.T.C. of federal antitrust and state securities laws. On April 5, U.T.C. filed with the Ohio Division of Securities notification of their intended takeover bid, under the Ohio Takeover Bid Statutes.

On April 25, U.T.C. filed its answer in the Ohio Federal District Court denying the allegations by B&W and countered with allegations against B&W saying they disseminated false information to their stockholders to stifle their offer. They also requested that B&W submit to them a list of their shareholders.

On April 27, the Governor of New Jersey signed into law the "New Jersey Corporation Takeover Bid Disclosure Law."

B&W is a New Jersey corporation, and this Act therefore applies. It requires notification of a takeover bid for 10 percent or more of the outstanding equity shares of a New Jersey corporation. The chief of the State Bureau of Securities may within 20 days order a hearing to determine that the proposed offer will not:

- (i) jeopardize the financial security of the target company or prejudice the interests of employees; or
- (ii) be unfair to shareholders. 62

During the months of April and May, U.T.C. filed with the New Jersey Bureau of Securities the information it "believed to be required" in accordance with the aforementioned disclosure law, and in Arkansas under the "Arkansas Investor Protection Takeover Act," because over 35 shareholders were residents of that state.

On June 1st the New Jersey Bureau of Securities decided that no hearing was necessary under the state's takeover act.

During these same two months the Federal District Court of Ohio found U.T.C.'s offer in accordance with its statutes, New Jersey started hearings, and the Arkansas court delayed hearings for ten days.

But B&W was not through with their delaying tactics.

The company used nuclear materials and therefore had licenses for these materials. Under Article 184 of the Atomic Energy Act of 1946 these licenses may not be transferred without prior approval of the Nuclear Regulatory Commission (NRC).

B&W requested the NRC to forbid U.T.C. to obtain transfer of these licenses, or submit an application for the transfers.

The NRC denied these requests and thus B&W appealed for a reversal in the Federal Court of Appeals in Washington, D.C.

All of B&W's requests were denied and as of June of that year the position of the licenses was still undecided.

From June 1st to the 13th, the Federal District Courts of Ohio, New Jersey and Arkansas all decided in favor of U.T.C. As a result B&W appealed these decisions in each state.

Then on July 5, the Antitrust Division of the U.S.

Department of Justice brought an action against U.T.C. in the District Court in Connecticut, alleging that U.T.C. had violated section 7 of the Clayton Act. The effect of an acquisition by U.T.C. of B&W would be, the Division claimed, to lessen competition or tend to create a monopoly in utility power generating equipment. 63

On July 15, the Federal District Court of Ohio decided that U.T.C. had not violated section of the Clayton Act, article 184 of the Atomic Energy Act or the Securities Exchange Act. The court also denied U.T.C.'s counter claim of April 25.

On August 4, U.T.C. increased their offer to \$48 a share. This offer expired at 10 AM on August 25. As of August 6, the battle between U.T.C. and B&W was still undecided.

While these court fights were occurring between U.T.C. and B&W, McDermott entered the acquisition picture. Between April 6 and May 13, they purchased, on the New York Stock Exchange 1,205,600 shares of B&W stock, or about 9.9 percent of those outstanding. McDermott's position was that they

couldn't lose by these purchases. By purchasing these shares at between \$39 to \$45, if UTC won the takeover at \$48, then McDermott would stand to make approximately \$6 million profit. The alternative action, which they took, was to bid for B&W themselves. The action pleased the speculators in the financial world.

As previously stated in Chapter III, McDermott entered the bidding contest with a bid of \$55 a share for 4.3 million shares. This would have given McDermott 45 percent of B&W's shares outstanding. From then on the bidding contest between McDermott and U.T.C. was in motion.

The B&W directors, although they would have desired to remain an independent company, saw an inevitable takeover and decided to make the best of it. As a result they decided on August 14 to accept McDermott's offer.

For the next ten days McDermott and U.T.C. escalated their bids, as shown in Chapter III, until on August 24, just before noon, U.T.C. withdrew its bid to acquire B&W. The resulting merger between B&W and McDermott was implemented by the purchase of 4.8 million shares at \$62.50, including the passing along of the \$2.50 special dividend to B&W's shareholders. This equated to 39 percent of B&W shares outstanding. Added to the 1.2 million shares McDermott purchased openly on the NYSE, they already held approximately 49 percent of B&W shares.

In analyzing the U.T.C.-McDermott fight, it appears that it was U.T.C.'s strategy of inching up its bids that give McDermott the time it needed to wage an all-out fight. As stated by John A. Morgan, senior vice-president of Smith Barney, Harris Upham & Co. and McDermott's chief advisor in its bid for B&W, "If U.T.C. had started at \$50 a share-something close to a fair price--McDermott would never have entered the fight." 64

C. DESCRIPTION OF THE MERGER

1. Effective Date of the Merger

At a special meeting of stockholders of B&W held on March 30, 1978, 10,563,537 shares of B&W common stock were voted in favor of the merger and 85,791 shares were voted against. These "in favor" shares exceeded the minimum 80 percent of total shares required to approve the merger. On the same day in a special stockholders meeting of McDermott, 24,824,585 shares were voted in favor of the merger, while 271,241 shares were voted in opposition. Again this exceeded the minimum requirement for the merger to become effective. 65

As a result of this approved vote by the stockholders of both companies and also the filing of certificates of merger in the offices of the Secretaries of State of New Jersey and Delaware, the merger became effective on March 31, 1978. At that time the separate existence of B&W ceased and B&W merged into McDermott Energy, Inc., a Delaware corporation and newly-formed, wholly-owned subsidiary of McDermott. 66

2. Conversion and Exchange of Shares

As of March 31, 1978, the effective date of the merger, all outstanding shares of B&W common stock, other than those already owned by McDermott, were converted into one share of \$2.20 Convertible Preferred Stock and one share of \$2.50 Preferred Stock. In addition, any B&W stock options still outstanding became options to purchase two shares of McDermott Common Stock at the same price.

3. Regulatory Approvals

There were three basic approvals required prior to the consummation of the merger between McDermott and B&W. First, the Foreign Investment Review Act of Canada (FIRA) requires that notice of acquisition of "control" of B&W's Canadian subsidiaries by McDermott be furnished to the Canadian Foreign Investment Review Agency and that such an acquisition be reviewed by the Minister of Industry, Trade and Commerce and approved by the Governor in Council of Canada as being or likely to be "of significant benefit to Canada." On January 26, 1978 McDermott did file, in accordance with FIRA, and on February 8, 1978 was approved by the Federal Investment Review Agency.

Secondly, on January 20, 1978 McDermott filed with the Nuclear Regulatory Commission concerning the transfer of B&W's nuclear licenses, and on February 6, 1978 approval was granted for these transfers.

Finally, the last consideration was that of antitrust approval by the Justice Department and the Federal Trade Commission (FTC). Both B&W and McDermott filed required reports with the FTC, at the request of the Justice Department, and were given approvals.

With these approvals obtained McDermott was able to go ahead with the consummation of the merger with B&W, effective March 31, 1978.

4. Reorganization and Management

As one of the agreements of the merger, five of B&W's present directors, Messrs. Zipf, Baker, Wearly, Cantwell, and Shaw became directors of McDermott. B&W's business was to be carried on under substantially the same operating management as a subsidiary of McDermott and the officers of B&W would become officers of the McDermott subsidiary. In addition, Mr. George G. Zipf, who was Chairman and President of B&W, would also become Vice Chairman of McDermott. However, as will be discussed in the next chapter, B&W's management was changed substantially as an indirect result of the merger and the movement of B&W's corporate offices from New York City to New Orleans, Louisiana.

D. BENEFITS OF MERGER AND FINANCIAL OUTLOOK

As described in Chapters IV and V, the benefits that McDermott hoped to attain from the B&W merger were obvious. Flush with cash, McDermott needed to diversify in time to

soften the blow from cyclical decline in its offshore oil construction businesses and in order to fend off takeover possibilities. On the other hand, B&W looked at McDermott as a better "corporate parent" than U.T.C. Whether or not these goals have been achieved will be discussed in the succeeding chapter.

Another aspect that McDermott looked at in trying to acquire B&W was the latter's sophisticated management. With B&W's help, McDermott has given more clout and manpower to its corporate financial and auditing staffs, long-range planning systems have been installed, reporting procedures have been refined and standardized, and personnel reviews have become more regular and formal. Whereas B&W's management had always been seen as conservative, McDermott, in contrast, was seen to be filled with aggressive, free-wheeling entrepreneurs. This latter philosophy was well suited to the 1970's where McDermott experienced very fast growth. Over the past few years their financial troubles have called for a management policy more in keeping with B&W's.

In looking at the combination of B&W and McDermott,
McDermott was looking for help to save their business,
especially the marine construction services division.

Exhibits VI-1 and VI-2 are proforma statements that show
the combination of the two companies financial statements as
of March 31 and September 30, 1977.

In general, therefore, whether the acquisition of B&W was successful in achieving its objectives has to be looked at closely. Tied to this analysis is the Three Mile Island nuclear accident and the impact it had on the nuclear power field of B&W. The price-fixing convictions of McDermott's top management also must be looked at. As is seen since the merger, the businesses of both McDermott and B&W have declined, at least for awhile. As a result, the management expertise of B&W is sorely needed by McDermott.

E. CHAPTER SUMMARY

The author has shown that U.T.C. wanted to acquire B&W because of B&W's reputation within their industry. The subsequent bidding war with McDermott raised B&W's stock to 83.8 percent of its then market value. To stall a merger attempt B&W used various legal defenses, but eventually was acquired by McDermott. The merger was consummated on 31 March 1978 by the conversion and exchange of all outstanding shares of B&W common stock. Whether or not the merger was successful from either companies' standpoint will be analyzed in the succeeding chapter.

Proforma Combined Balance Sheet (Unaudited)

	ASSETS			
	McDermott	B&W	Adjustments	
	September 30,	September 30 1977	, Debit (Credit)	Pro Forma Combined
Current Assets:				
Cash and Marketable Securities	\$ 19,404	\$ 182,700	\$2,392 (13)	\$ 204,496
Cert. of Deposit & Short-term Securt.	543,973	7 102,700	42,336 (13)	543,973
Receivables and Unbilled Sales	259,439	402,400	(3,466) (6)	658,373
Inventories	123,146	291,300		414,446
Prepaid Expenses	14,721			14,721
TOTAL CURRENT ASSETS	960,683	876,400	(1,074)	1,836,009
Investments	367,624	8,800	(351,556)(1)	24,868
Property, Plant & Equipment, Net of				
Accumulated Depreciation	460,879	364,800	104,000 (4)	929,679
Excess of Cost Over Net Assets of	c 252		200 540 (3)	*** ***
Purchased Businesses	6,252		288,548 (7)	294,800
Other Assets	1,310	39,800	12,000 (5)	50,110
TOTAL ASSETS	\$ 1,796,748	\$ 1,289,800	(3,000)(12) \$ 48,918	\$3,135,466
101MB M35E13	3 1,730,748	3 1,209,800	7 70,310	73,133,400
LIABILITIES	AND STOCKHOLDE	ERS' EQUITY		
Current Liabilities:				
Notes Payable	\$ 6,324	\$ 35,300	\$	\$ 41,624
Accounts Payable and Accrued	166,705	145,200	(6,000)(8)	355,905
Expenses			(38,000)(9)	
Provision for Warranty Expense		68,600		68,600
Accrued Taxes on Income.	127,495	224,200	(54,000)(11)	405,695
Dividends Payable	6,298	35,300	3,466 (6)	38,132
and Advance Payments	170,518	188,200		358,718
TOTAL CURRENT LIABILITIES	477,340	696,800	(94,534)	1,268,674
Deferred Income Taxes	62,834	27,000	27,000(10)	62,834
Long Term Debt	439,567	145,000		584,567
Other Liabilities and Reserves	40,350	1,800		42,150
TOTAL LIABILITIES	1,020,091	870,600	(67,534)	1,958,225
Stockholders' Equity:				
McDermott Common Stock; Par Value \$1.0	31,806	••		31,806
McDermott Cumulative Convertible Pref.				
Series A \$2.20, Redempt Value \$31.25			(200,292)(2)	200,292
McDermott Cumulative Preffered Series	-			
\$2.50, Redemption Value \$31.25			(200,292)(3)	200,292
BEW Common Stock; Par Value \$4.50		56,700	56,700 (14)	
Capital in Excess of Par Value	121,662	32,700	32,700 (15)	121,662
Retained Earnings	633,464	338,000	338,000 (16)	633,464
Less:	786,932	427,400	26,816	1,187,516
Treasury Stock	(2,564)	(8,200)	(8,200)(17)	(2,564)
Unamortized Def Exec. Stk Plan Expense		(4,200)	(4,200) (11)	(7,711)
TOTAL STOCKHOLDERS' EQUITY	776,657	419,200	18,616	1,177,241
TOTAL STK EQUITY & LIABILITIES		\$ 1,289,800	\$ (48,918)	\$3,135,466

Exhibit VI-1

Source: Joint Proxy Statement for Special Meetings of Stock-holders of McDermott and Babcock & Wilcox Co., February 22, 1978.

NOTES TO PRO FORMA COMBINED BALANCE SHEET:

(unaudited)

- (A) The pro forma combined balance sheet assumes that the Merger occurred on September 30, 1977 and B&W's assets and liabilities were recorded at estimated fair values in accordance with generally accepted accounting principles.
- (B) The McDermott Common Stock has been adjusted to reflect the effect of the two-for-one stock split of December 15,1977.
- (C) The pro forma adjustments assume each outstanding B&W Common Share, other than B&W Common Shares owned by McDermott, will be exchanged for one share of \$2.20 Convertible Preferred Stock and one share of \$2.50 Preferred Stock and all B&W Common Shares will be cancelled in the merger.

For purposes of determining cost in this pro forma presentation, each share of McDermott Preferred Stock to be issued under the terms of the Merger has been assigned a value of \$31.25.

 $\,$ (D) The following is a summary of the adjustments required to reflect the Merger and estimated purchase price allocation.

1. Eliminate existing investment in B&W	ADJUSTMENTS Debit (Credit) In thousands) .\$ (351,556)
2. To reflect issuance of \$2.20 Convertible Preferred Stock	. (200,292)
3. To reflect issuance of \$2.50 Preferred Stock	. (200.292)
	\$ (752,140)
Net Adjustments Resulting from Purchase	
4. To adjust values of B&W property, plant and eqpt. to estimated fair	
value based upon replacement cost information	.\$ 104,000
5. To record estimated fair value of patents of B&W	. 12,000
6. To eliminate intercompany dividends receivable and payable	•
	(3,466)
7. Costs in excess of equity in net assets of B&W	
8. To accrue estimated additional direct merger costs	
9. To record the actuarially computed value of vested benefits in excess of	
the total of BGW's pension funds and balance sheet accruals, net of tax	
	(30,000)
10. To eliminate non-current deferred income taxes applicable to B&W's	22 400
property, plant and equipment	27,000
11. To eliminate current deferred income taxes and establish tax liability	
at current rates for difference between book and tax basis of B&W's	(5.4.000)
inventories and warranty reserve	
12. To eliminate goodwill of acquired companies on BEW's fin. statements	
13. To record assumed exercise of B&W's exercisable stock options	
	332,940
Elimination of BEW's Equity Accounts	
14. Common Stock	
15. Capital in Excess of par value	. 32,700
16. Retained Earnings	
17. Treasury Stock	(8,200)
	419,200
	\$ 752,140

Proforma Combined Statement of Earnings

(Unaudited)

Pro forma Combined	\$1,531,624	1,223,613	10,850 (7,195)	+ + +	\$ 87,151	\$2.75	\$2.42	39,007
Adjustments Debit (Credit)		\$ 4,200(1) (1,200)(2) 3,800(6) 1,200(4) 1,700(5)	3,195(8)	23,795 (5,500) (3) 18,295 15,382(7)	\$ 33,677			
Six Funths Ended 9-30-77	\$907,800	780,100	6,900	847,800 60,000 31,400 28,600	\$ 28,600	\$2.34	\$2.34	12,194
McDermott Six Months Ended 9-30-77 share data)	\$623,824	433,813		478,423 145,401 53,173 92,228	\$92,228	\$2.93	\$2.85	32,411
Pro Si forma Combined except per si	\$2,915,641 \$623,824	2,347,732 433,813	36,733	2,596,515 319,126 103,284 215,842 30,765	\$ 185,077	\$5.87	\$5.12	11,521 19,010
Adjustments Pro Six Honths Debit forma Ended (Credit) Combined 9-30-77 (In thousands except per share data)		\$ 8,300(1) (2,500)(2) 3,800(6) 2,300(4) 3,300(5)	27,600(3)	42,800 42,800 (13,900) (3) 28,900 30,765(7)	\$ 59,665			
B&W Year Ended December 31 1976	\$1,691,800	1,475,600	104,800 14,800 (3,700)	1,591,500 100,300 47,200 53,100	\$ 53,100	\$4.37	\$4.37	12,141
McDermott Year Ended March 31, 1977	\$1,223,841	856,932		5 7	191,	\$6.11	\$5.93	31,342 ares 32,415 1 32,415 ings f. Dividends
	Revenues	Cost of Operations	Selling, Gen & Admin Interest Exp. (Inc) Net Other Expense (Inc) Net	Income Before Taxes (9) Income Taxes Net Income (9)	Earnings applicable to common shares	Earnings per share primary (10)	Earnings per share fully diluted(10)	weighted average # of common shares outstd. primary wgtd avg # of common shares outstdfully diluted Proforma ratio of earnings to fixed charges & Pref. Dividends

Exhibit VI-2

Source: Joint Proxy Statement for Special Meetings of Stockholders of McDermott and Babcock & Wilcox Co., February 22, 1978.

Notes to Proforma Combined Statement of Earnings (Unaudited)

The proforma combined statement of earnings gives effect to the following adhustments:

- (1) to amortize over forty years the costs in excess of equity in net assets of B&W.
- (2) to adjust pension cost due to amortization over fifteen years of accrual of B&W's actuarially computed value of vested benefits in excess of the total of B&W's pension funds and balance sheet accruals.
- (3) to adjust interest expense(income) to reflect the cost less related tax effect of the financing at an assumed interest rate equal to the average minimum commercial lending rate for the respective periods of the acquisition of the BEW Common Shares for cash, assuming such acquisition was made at the beginning of the respective periods.
- (4) to record additional depreciation on write-up of B&W's plant and equipment based on the estimated remaining life thereof, which is assumed for this purpose to be twelve years.
- (5) to record amortization of patents, trademarks and licenses valuation principally over seven years.
- (6) to record the write up to fair value of inventory as a charge against income within each period.
 - (7) to record preferred dividends.

- (8) to eliminate recorded equity in income of BEW.
- (9) the impact of BBR's loses reflected in B&W's Income Before Taxes and Net Income for the year ended December 31, 1976 and the six month periods ended September 30, 1977(including foreign exchange transaction losses) was \$20,300,000 and \$12,900,000, respectively.
- (10) in calculating the pro forma earnings per share, the weighted average number of shares outstanding has been adjusted to assume that B&W stock options exercisable prior to the effective date of the merger have been exercised, and the balance of the outstanding B&W stock options have been treated as common stock equivalents.

VII. POST MERGER APPRAISAL

A. GENERAL

The question of whether or not the March 31, 1978 merger between Babcock & Wilcox Co. (B&W) and J. Ray McDermott & Co., Inc. (McDermott) was successful is a highly debatable one. While some corporate strategists have said that it was a blunder, McDermott emphatically states that the merger looked good in 1978, and looks even better in 1980. As was reported to McDermott's stockholders in their 1980 annual report, "The combination of our two companies has made a bigger and better corporation than either alone ever could have become. It balanced our business cycles. It increased our capacity to penetrate the international market. And it broadened our base to include all major forms of energy services." 69

As has been shown, McDermott's basic business in the marine construction services has slipped. This decline on the offshore construction business is industry-wide. While McDermott's decline was substantial, it was less than companies like Brown & Root, Inc., a Houston subsidiary of Halliburton Company. Brown & Root actually fold up their offshore business in times like this, and then restart again when the economy improves. In this respect, McDermott was able to pick up some of this business lost by smaller firms such as Brown & Root.

In looking at the pros and cons of the merger, it appears that from McDermott's point of view the merger was successful. Their two main goals for the acquisition were to (1) diversify to lessen the blow of their declining marine construction business and (2) avoid becoming an acquisition target themselves. McDermott has achieved both. B&W contributed a large amount of cash to the corporation. B&W's power generation systems contributed 44 percent of the company's fiscal 1980 revenues and was solely responsible for keeping McDermott's "head above water." The introduction of B&W's sophisticated management system and the realignment of management responsibilities throughout the company has helped make the divisions more manageable and minimized the reporting chains of command.

For B&W the author feels that it appears to be just a matter of who would make the better "corporate parent."

With a takeover of the company inevitable, B&W felt that

McDermott was better than United Technologies Corporation

(U.T.C.).

The merger is, however, not without some drawbacks. The three most significant ones are Three Mile Island (TMI) and its impact on B&W's nuclear power business, the price-fixing scandal that rocked McDermott's top managment structure, and finally the typical "house cleaning" that goes with any large corporate takeover. The next sections will address these points in more detail.

B. EFFECTS OF THREE MILE ISLAND

Probably the biggest question mark in the author's viewpoint is what effect T.M.I. had or will have on B&W, the
nuclear power industry as a whole and the world's economy.
With respect to B&W's business, although they had decreased
their reliance on nuclear energy, T.M.I. has poisoned the
public's opinion on nuclear generation of electricity to the
point that any re-emphasis in this field by B&W in the future
will be greatly hampered.

1. The Accident

At about 4:00 AM on March 28, 1979, Unit 2 at the Three Mile Island Nuclear Power Station, near Harrisburg, Pennsylvania, experienced a turbine trip and lose of coolant to the reactor. What followed was a near "core meltdown" as a result of the nuclear core becoming exposed. Basically, this acident was the result of a combination of mechanical and human errors and design deficiences in the system.

On April 5, 1979, the Nuclear Regulatory Commission (NRC) released a report which identified six problem causes which contributed to the nuclear accident:

- At the time of the initiating event, there was loss of feedwater, with both of the auxiliary feedwater trains valved out-of-service.
- The pressurizer electromatic relief valve, which opened during the initial pressure surge, failed to close when the pressure decreased below the actuation level.
- Following rapid depressurization of the pressurizer, the pressurizer level indication may have lead to erroneous inferences of high level in the Reactor

- Coolant System (RCS). The pressurizer level indication apparently led the operators to prematurely terminate High Pressure Injection (HPI) flow, even though substantial voids existed in the RCS.
- 4. Because the containment does not isolate on HPI initiation, the highly radioactive water from the relief valve discharge was pumped out of the containment by the automatic initiation of a transfer pump. The water entered the radioactive wastetreatment system in the auxiliary building, where some of it overflowed to the floor. Outgassing from the water and discharge through the auxiliary building ventilation system and filters was the principal source of the off-site release of radioactive noble gases.
- 5. Subsequently the HPI system was intermittently operated in an attempt to control primary coolant inventory losses through the electromatic relief valve, which were apparently based on the pressurizer level indication. Owing to the presence of steam or noncondensable voids elsewhere in the RCS, this led to a further reduction in primary coolant inventory.
- 6. Tripping of RC pumps during the course of the transient, to protect against pump damage due to pump vibration, led to fuel damage since voids in the RCS prevented natural circulation. 70

There was radiation leakage from the accident, but no one was, or has since been, injured or killed as a result. The radiation, primarily due to xenon 133 and krypton 85, escaped via contaminated water that was being pumped, rather than by a direct leak in the containment. The loss of coolant was sufficient to expose the top of the core and resulted in not only damage to the core, but also to the development of the hydrogen bubble that was the greatest concern. Finally, a later release was caused by the venting of gas pressure built up in the cooling water system. 71

One problem that resulted from the accident was the media involvement which led to a public uproar over the already tender subject of nuclear energy. So much information was released from the accident site that the media had no chance to sort out fact from fiction. The almost simultaneous release of the film "The China Syndrome" did not help matters either. The result was a "disaster" that was blown out of proportion. As was stated during the United States NRC's inquiry, "had a meltdown occurred, the radioactivity would probably have been contained by the reactor building."

what can be concluded from the accident concerning public opinion is that both sides can reaffirm their beliefs. "On the one hand, the claim that nuclear power is relatively safe had been dented but not destroyed. On the other hand, such a catalogue of negligence in the United States nuclear establishment had been exposed that nobody can remain complacent about nuclear safety." The lessons to be learned are: the dangers of complacency and the need for a better training program for plant operators. Nuclear rules within the United States are designed to prevent "single-fault" accidents. Multiple failures, however, in pieces of equipment that individually are unimportant are not given sufficient attention. The analysis that will come from T.M.I. will hopefully prevent an identical accident from happening.

But unless plant designs and construction specifications are reviewed and updated, a more serious accident may likely occur.

It took weeks, even months, to find the causes and discuss ways to clean up the worst nuclear accident in history. But the impact that T.M.I. will have on the economy will be with us for a lot longer.

2. Impact on the Nuclear Community

Nuclear energy has for a long time been a very sensitive subject. The pros and cons concerning nuclear safety, disposal of nuclear waste, and radiation leakage have been critically debated. T.M.I. has added more fuel to an already heated and controversial question.

Nuclear power had been planned to produce a seventh of all the energy consumed throughout the world by the year 2000. With additional emphasis now being put on nuclear safety, the already high cost of going nuclear will go still higher.

number of years prior to T.M.I. Currently the major deterrent in establishing nuclear power plants is the twelve year
lead time required to site, license, and build a power plant.
President Carter had proposed legislation to shorten this
time frame by cutting some of the "red tape," but at the
same time not degrading the requirements for approval of
these licenses. Although President Carter still expects to

pass this legislation through Congress, the costs of nuclear energy will continue to rise for one reason because of delays in approving nuclear projects.

The fight over whether or not nuclear energy should be expanded or make a shift to coal-fired power plants is still continuing. While working as either a coal miner or in the coal-fired power stations can lead to future deaths due to respiratory problems, the deaths can be greatly reduced by the introduction of "gas scrubbers" in the plants, and added safety precautions in the mines. In contrast, nuclear power seems to offer a peculiar all-or-nothing type of danger. The pro-nuclear people are still able to say that no member of the public has ever been injured or killed by nuclear power plants. As one energy expert stated, "....the full effect of the accident on the future of nuclear power probably won't be clear for months or even years. industry has been in a recession anyway, with few new reactors on order because of a worldwide drop in electricity demand, licensing delays and financial problems."74

Whatever the outcome from T.M.I., the cost of producing electricity in the future will continue to soar; whether because of the lengthy delays in the approval of nuclear plants or of the cost of switching to other fuel sources if nuclear power is stymied permanently. Whatever the outcome, especially if President Carter's energy plan

is ever approved, B&W will stand to gain substantially from any conversion to coal-fired power plants.

3. Impact on B&W and the Merger

The impact of T.M.I. on B&W has been damaging but not destroying. The results of various lawsuits based on the accident appear to be leaning in B&W's favor. The company was exonerated by the NRC with respect to the building of the reactor according to design specifications. The company feels that they will be fully covered against any claims made from the subsequent lawsuits by the provisions of the Price-Anderson Act, under which the government will pick up any costs incurred as a result of a nuclear accident.

With respect to B&W's nuclear power business, T.M.I. was really the "icing on the cake," not a cause for its reduction. Because of the energy crises that have occurred since the early 1970's energy conservation has been improving. A result within the utility industry has been a reduction in their orders for nuclear power plants. Even before T.M.I. B&W had been trimming its committment towards the nuclear business, concentrating on federal programs while pulling back on commercial work. In the spring of 1979 they closed down their Mt. Vernon, Indiana plant that manufactured nuclear components. 75

McDermott management expects that if the utilities do shift away from nuclear power, that B&W will benefit from the shift. While B&W claims about 10 percent of the U.S.

nuclear market they claim about 50 percent of the market in coal-fired boilers. This latter market is considered the main alternative to nuclear power due to coal's abundance.

Overall, nuclear business accounts for 15 percent of McDermott's business, while coal plants account for about 25 percent. A major determinant as to the future direction of power plants will be President Carter's energy plan, containing the \$10 billion coal conversion program.

In analyzing the impact that T.M.I. had on the merger, the author feels that it was not as big a detriment as originally thought. While it certainly will not help B&W's nuclear business, it appears that they were already lessening their dependence on nuclear power and concentrating more on the other areas of their business.

C. McDERMOTT'S PRICE-FIXING SCANDAL

On the eve of the merger between McDermott and B&W, the former was involved in a Federal grand jury investigation, in New Orleans, into price-fixing, collusion and antitrust violations. The investigation had actually been under way since 1976, and concerned illegal activities by McDermott and Brown & Root, Inc., dating back to 1968. In the spring of 1979, the grand jury found four present and former McDermott executives guilty.

The investigation showed that McDermott and Brown & Root, Inc. were divvying up offshore projects between them at

prearranged prices. Such collusion was possible because of the hammerlock these two companies had on the offshore construction trade. Together, the pair built about 75 percent of the large platforms in domestic waters, installed 90 percent of them, and laid 90 percent of the large-diameter pipe connecting the platforms to coastline terminals.⁷⁷

Beside these findings were convictions for illegal kick-backs and political contributions. McDermott personnel were reimbursed for contributions to politicians in Louisiana. Over a ten year period the estimated dollar value of these contributions was approximately \$1.1 billion. This marked the first time that a company of McDermott's size had been convicted under the racketeering statutes.

As a result of these convictions McDermott's management underwent a major structural change. The four executives convicted all retired citing personal reasons. In addition to this, McDermott had been under tremendous pressure from the Securities Exchange Commission (SEC), the Justice Department and its outside directors to tighten its controls and stop the illicit payments. By merging with B&W, McDermott was able to bring in four new members to its board of directors, add personnel in the much needed audit department and institute long-range planning systems. One major change was that Walter M. Vannoy, former B&W executive vice president, was named McDermott's executive vice president and chief administrative officer, and was tasked with the

integration of the two compaines. Whereas McDermott never before utilized long-range planning, the introduction of "new blood" from B&W caused this type of activity to become a doctrine for McDermott.

In summary, it would appear that with the primary divisions within McDermott's business declining the management know-how of B&W will be sorely needed. The fact that the price-fixing scandal occurred does not seem to have hurt McDermott professionally. It would therefore appear that McDermott benefitted from the merger with B&W due to the latters management addition, which was helped along by the resignation of some key executives as a result of the indictments.

D. CORPORATE SHAKE-UP

Inherent in any merger involving large corporations is the shake-up of the corporate management structure. A review of literature indicates that acquired company's finance division can be gutted. The financial executives are the ones who "pull the purse strings," and the acquirer wants this power.

So was the case with the McDermott-B&W merger. In 1979 McDermott moved B&W's corporate offices from New York City to their offices in New Orleans. With this change came numerous firings. A large percentage of B&W employees from the corporate office were not asked to transfer to

Louisiana, Other top executives who were given the invitation to move, opted instead to retire. These executives were the ones that McDermott wanted in their company. This change of home office came as an unpleasant surprise to B&W. McDermott moved the corporate office due to an estimated savings of approximately \$20 million in rental, maintenance and utility fees and tighter control of B&W.

Another major change involved the organizational structure of B&W. In March 1980, B&W was restructured into six operating units. These units are the Business Integration Group, Materials Group, Fossil Power and Construction Group, Industrial Products and Services Group, Nuclear Power Group and the Naval Nuclear Fuel Division. The reasoning was to provide a more balanced distribution of management responsibilities and a better focus for those responsibilities. The Power Generation Group comprised half of the companies employees, now no group is larger than one-third.

E. FINANCIAL OUTLOOK

Despite any other disadvantages that can be cited from the merger, the one sure advantage from McDermott's standpoint is that B&W has been the main force in holding the company's "head above water." Fiscal year 1980 showed McDermott with a \$137.9 million increase in revenues, but a decrease in net income of \$4.6 million. The main cause for the drop in net income is still McDermott's marine construction services. The marine construction services' revenues

decreased by \$28,778,000 from 1979, as a result of decreases in domestic operations. McDermott experienced an operating loss of \$46,737,000 in this segment, compared to an operating profit of \$61,011,000 in 1979. While this segment accounted for 30 percent of revenues, its percent of operating income was a negative 30 percent.

Power generation system's revenues decreased by \$6,403,000 due primarily to extended strikes at several plants. Despite the impact of the strike, this group contributed to an increase in operating profit of \$25,117,000 from 1979. Thus, while the power generation systems accounted for 44 percent of total revenues, it accounted for 93 percent of McDermott's operating income. Exhibits VII-1 and VII-2 show McDermott's fiscal 1980 financial statement.

B&W's engineered materials division also had increased revenues due to increased shipments of both tubular and refractory products. While McDermott's other products and services divisions had a negative 4 percent operating income, due principally to an incurred loss of approximately \$10.5 million on a domestic operations' project.

In summary it is seen that B&W's addition has greatly benefitted McDermott's financial picture. They are accounting for nearly all of the company's operating income, due to McDermott's trouble in the marine construction business.

McDermott's cash situation has also improved, up nearly \$20 million, with the addition of B&W's figures.

ASSETS

	1980_
	(In thousand
Current Assets:	of dollars)
Cash	\$ 38,280
Short-term investments, at cost which	
approximates market	485,867
Accounts and notes receivable	725,066
Marketable securities, at cost (market	
\$40,972,000 in 1980)	13,788
Contracts in progress	361,125
Inventories	422,349
Prepaid expenses	14,889
Total Current Assets	2,061,364
Long-Term Note Receivable - Unconsolidated	
Joint Venture Company	29,669
Investments in Joint Venture Companies, at Equity	17,830
Property, Plant and Equipment, at Cost:	
Land	36,034
Buildings	204,543
Machinery and equipment	1,222,167
Property under construction	91,030
	1.553.774
Less accumulated depreciation and amortization	527,933
Net Property, Plant and Equipment	1,025,841
Excess of Cost Over Fair Value of Net	
Assets of Purchased Businesses	
Less Amortization	357,253
Other Assets	58,691
Total	\$3,550,648

Exhibit VII-1

LIABILITIES AND STOCKHOLDERS' EQUITY	
	<u> 1980 </u>
	(In thousands of dollars)
Current Liabilities:	
Notes payable to banks and current	
maturities of long-term debt	\$ 29,840
Accounts payable	191,167
Accrued liabilities	357,318
Advance billings on contracts	313,116
Provision for warranty expense	106,903
U.S. and foreign income taxes	161,087
Dividends payable	18,923
Total Current Liabilities	1,178,354
D. () 1 N O =	
Deferred and Non-Current Income Taxes	382,502
Long-Term Debt	471,853
Other Liabilities	. 106,812
Contingencies and Commitments	
Redeemable Preferred Stocks	394,468
Common Stock	
and Other Stockholders' Equity	
Common stock	36,768
Capital in excess of par value	254.521
Retained earnings	732,565
	1,023,854
Less: Cost of common stock in treasury	2,871
Unamortized deferred career	
executive stock plan expense	4,324
Total Common Stock and Other Stockholders' Equity	1,016,659
Total	\$3,550,648

J. Ray McDermott & Co., Inc. and Subsidiaries for the Fiscal Year. Ended March 31, 1980.

Consolidated Statement of Income and Retained Earnings

		1980 In thousands of dollar cept per share amount
Revenues	\$3	,282,510
Costs and Expenses:		
Cost of operations	2	.803.872
Depreciation and amortization	_	111,803
Selling, general and administrative expenses		261,184
	3	,176,859
Operating Income		105,651
Other Income (Expense):		
Interest income		49,205
Interest expense		(48,633)
Equity in earnings of joint venture companies		7,291
Other		39,955
		47,818
Income Before Provision for Income Taxes		153,469
Provision for Income Taxes		
Current		17,847
Deferred		47,256
		65,103
Net Income	<u> </u>	88,366
Retained Earnings, Beginning of Year Deduct:	-	714,883
Cash dividends - common (\$1.25 in 1980 per share) - preferred (Series A, \$2.20 and Series B,		40,388
\$2.60 per share in 1980)		30,296
Retained Earnings, End of Year	\$	732,565
Earnings Per Common and Common Equivalent Share:		
Primary	\$	1.77
Fully diluted	\$	1.76

Exhibit VII-2

In evaluating the impact of B&W's addition from a financial standpoint it is obvious that without them McDermott would be in serious trouble. Although fiscal year 1980 was overall a disappointing year there seems to be some bright spots. B&W, even with problems of a depressed boiler industry and the troubles in the nuclear field resulting from T.M.I., still showed a good financial picture. Overall, although McDermott's revenues were up only slightly, the decrease in net income was only a 4 percent drop from 1979, compared to decreases of 20 to 40 percent over the preceeding two years. B&W is shifting its emphasis away from nuclear steam systems and instead concentrating on coal-fired systems, nuclear components, and industrial products. McDermott divisions must wait for an increase in the economy and a resurgence in the offshore drilling industry.

In many energy experts view, the marine construction sector of the offshore drilling industry will soon be on the verge of an upswing, due to the world's need to look harder for answers to its energy problems. Add to this the impact if President Carter's energy bill is passed, and McDermott could be in fine shape in the near future. In either case, the acquisition of B&W from a financial standpoint has been a success.

F. CONCLUSION

While many "experts" may consider the merger a blunder on McDermott's part, it appears that the reverse is true. Without the merger with B&W, McDermott would surely have been an acquisition target itself. They were in fact on Harry Gray's "hit list" of corporations U.T.C. was considering taking over.

Even though T.M.I. has damaged the reputation of B&W somewhat in the nuclear power industry, B&W is currently contributing almost the entire net profit of McDermott.

In analyzing McDermott's objectives in their desire to merge, it is apparent that they achieved what they were after. B&W's business will continue to keep McDermott solvent until their marine construction services business can "right itself," and then the combined businesses should make McDermott a stronger company than they ever were. Between their business in oil and natural gas, and B&W's involvement in nuclear and fossil fuels, McDermott will be involved extensively in whichever direction the world's economy goes, and will surely play an important role in the energy field of the future.

VIII. SUMMARY AND CONCLUSIONS

A. SUMMARY

Chapter I started with a look at the world economy, specifically the energy crisis that has existed since 1973. While oil and natural gas reserves are becoming scarcer, the energy needs of tomorrow are sure to be filled by coal, nuclear power and various other sources. Babcock & Wilcox Co. (B&W) and J. Ray McDermott's (McDermott) businesses are both concerned with meeting these energy needs. While B&W has had a good financial picture, McDermott has not, due largely to reductions in domestic and international operations of its marine construction services.

Due in part to its financial woes, McDermott merged with B&W in March 1978. The author's objectives were to look at the merger and appraise whether or not it was a good merger from the two companies' standpoint. A trend analysis of both companies' operating performances was accomplished in Chapter V. In some cases problems have been identified but solutions to these problems appear outside the scope of this thesis.

Chapter II talked about mergers in general, the various reasons companies merge, and why some mergers eventually fail. The legal implications, involving antitrust suits and restraint of trade, that companies must face when considering a merger were also presented.

The merger between B&W and McDermott, along with the bidding war between McDermott and U.T.C. was discussed in Chapters III and VI. U.T.C. wanted to acquire B&W because of their reputation within their industry; but lost out to McDermott after a bidding war that saw the final price of B&W go 83.8 percent higher than its market value. The various legal obstacles, discussed in Chapter II, were used by B&W to try to stall the acquisition attempts of both U.T.C. and McDermott.

In Chapter VII the author attempted to appraise the merger from both companies' viewpoints. McDermott viewed the merger as successful because it accomplished their objectives and will allow the company to remain solvent until their business can reverse its downward trend. Also appraised were the effects of TMI, McDermott's price-fixing scandal and B&W's corporate shakeup. Even with these problems McDermott still felt that the B&W acquisition was a good one. B&W accounted for 93 percent of McDermott's 1980 operating income, and was the one "bright light" of McDermott's otherwise disappointing operating year. The author concurs that the merger was successful from McDermott's viewpoint. However, he feels that because McDermott made unexpected changes to B&W's corporate structure that the merger may not have been viewed as favorable from B&W's standpoint. That is that McDermott is a better corporate parent than U.T.C.

B&W, although they originally wanted to remain independent, viewed a merger as inevitable. While they did not care to be taken over they felt that McDermott would allow them to operate the company in much the same manner as before. With U.T.C. as a "corporate parent" the feeling at B&W was that U.T.C. would not follow this same trend. The analysis shows, however, that the moving of B&W's corporate offices, the resulting termination of many employees and the realignment of the organization was not viewed as favorable by B&W management. From this point, it would appear that B&W has not been as happy with McDermott as originally expected.

B. GENERAL CONCLUSIONS

1. B&W's new orders by the electric utility industry are at low levels

New orders for power plants by the utility industry have been at low levels, due primarily to cost-induced conservation and a resultant decline in electricity demand growth. Additional causes include uncertainties by excessive government regulation and the lack of a national energy policy.

Because B&W deals with utilities their business has suffered also. Their boiler market is in a depressed state. Add to this problems in the neclear field as a result of TMI and B&W should be moving away from these historic businesses. A reduction in their nuclear power field is advisable, as is happening. Concentration on coal-fired

boilers, tubular and industrial products, and engineering and services should therefore be the greatest concern of B&W. Especially worthy of note is the "bonanza" that B&W will receive if President Carters' coal conversion program is made into law.

2. B&W's fixed asset utilization is showing an unfavorable trend

This trend has been steadily increasing, which shows a problem with fixed asset productivity. Accumulated depreciation is increasing faster than plant, property and equipment. This shows a current aversion to investing in new plants and equipment, due to a lack of incentive within their depressed market. A review of plants and equipment that are not being utilized profitabily should be accomplished, especially in areas where the business is being reduced as in the nuclear field. The closing of the Mt. Vernon, Indiana plant is a good step in this direction.

3. Substantial changes in management have resulted from the merger

These changes have resulted from the termination of B&W employees associated with the shift of the corporate office, the price-fixing scandal involving McDermott's top management, and the normal "house cleaning" that results from any large corporate merger. The biggest change came within the board of directors. Of the five B&W directors who became members of McDermott's board as specified by the merger terms, only two remain. The other three have retired

for various personal reasons, and have been replaced by McDermott personnel. Changes at lower levels of management have occurred because of the revamping of the organizational structure. The author is certain that changes of this magnitude were not expected when B&W was considering McDermott as a parent company. In the author's opinion these changes appear to have altered B&W's views on the success of the merger.

4. McDermott's offshore construction business is in a depressed state due to reduced sales from domestic and international operations

Because of the reductions in international sales due to foreign government intervention, and attempts to control the supply of oil and natural gas in general; McDermott's marine construction services have taken a severe downward turn over the last few years. Oil is becoming harder and more expensive to find and extract. Quadrupled energy prices have caused some conservation, thus demand is lessened. Because of the higher prices, supply of oil is encouraged. The result is a temporary glut. It is therfore not economical to drill for more oil in the short run. This has caused the reduction in McDermott's sales revenues. If not for B&W's contribution McDermott would be in dire straits financially. As many energy experts have predicted, because the world will be continuing to search for answers to their energy problems, the offshore construction industry should start to turn upward. This will benefit McDermott in two ways. One, by the mere fact that they are a leader in the construction of offshore drilling platforms, and they will benefit if offshore drilling increases over the next decades. The second reason is that more than 90 percent of the areas favorable to oil and gas recovery lie at water depths exceeding 1000 feet. McDermott already has the technology and equipment to explore for oil at these depths. Thus, if the offshore industry grows as projected, McDermott will benefit substantially.

5. McDermott is still flush with cash even though fiscal year 1980 was disappointing

While the projections for the future of McDermott and B&W's businesses are encouraging, right now both companies are in a depressed state. One factor that needs to be considered is the possibility of McDermott dipping into its excess cash and trying to diversify again via another merger. This is obviously the way that McDermott improved its financial picture for fiscal years 1979 and 1980. A merger is also the thing that brought on some of McDermott's current troubles, e.g. Three Mile Island. While B&W has helped out McDermott financially, there is the mess that has resulted from TMI. In retrospect, however, it would befit McDermott to look at acquiring a company that could fit nicely into its present business and help it expand in the future, as B&W will surely do. The author feels that McDermott should look at a company in the \$500 to \$750 million range, that could help alleviate

some of their financial woes. One drawback, however, is that presently McDermott's "market value" is not exciting. Their stock is low, which will probably not be appealing to a company interested in merging.

C. CONCLUSION

From a financial standpoint B&W is in fine shape, with some problems dealing with fixed assets. Conversely, McDermott is having financial troubles with their marine construction services business.

With these financial troubles in mind, McDermott's view of the success of the merger is that B&W's contribution to the company has kept them solvent. Both of McDermott's objectives prior to the merger were satisfied by the acquisition of B&W, and even with the troubles involving TMI and the price-fixing indictments, they still consider the merger a success. If the offshore drilling industry projections come to pass, and President Carters' energy program is ever implemented, J. Ray McDermott & Co., Inc. will once again be a strong leader in the energy field.

It appears evident that the merger between B&W and McDermott was successful from McDermott's point of view. From B&W's point of view, however, the conclusion is not as concrete. While a merger was inevitable, McDermott's changes within B&W's corporate structure appears to have changed B&W's mind concerning the success of the merger. With changes

occurring within B&W's management, the author concludes that B&W is not as happly with the merger as they originally expected to be.

APPENDIX A

THE BABCOCK & WILCOX CO. FINANCIAL STATEMENTS

1973 TO 1977

Income and Retained Earnings

Ten-year 32 rearrain on mousands of dollars	Posime Calendar Year	1977	1976_	1975	1974	1973
Sales (on percentage of completion method	for long-term contracts)	\$1,877,200	\$1,691.800	\$1,565,000	\$1.277,200	\$1,063,700
Costs and expenses except depreciation .		1,703,000	1,547,800	1,431,700	1,177,200	999.000
Depreciation			32.600	27,700	24,300	21.600
		1,740,000	1,580.400	1,459,400	1,202,000	1,020,600
Income from operations			111,400	105.600	75,200	43.100
Income from investments			3,900	1,300	5,800	3 800
Interest expense			(14.800)	(23,900)	(22,100)	(10.200)
income before taxes and minority interests		126,000	100,500	83.000	58.900	36.700
U.S. and foreign taxes on income			47.200	40,700	24,700	14,500
•		62,400	53,300	42,300	34,200	22.200
Income applicable to minority interests		(600)	(200)		(100)	(100)
Net income for the year			53,100	42,300	34,100	22. 00
Cash dividends declared			12,809	9.600	9.700	9.700
Remainder, to retained earnings		13,700	40,300	32,700	24,400	12.400
Retained earnings at beginning of year			297.700	265,000	240,600	228,200
Retained earnings at end of year			\$ 338.000	\$ 297,700	\$ 265,000	\$ 240.600

Changes in Financial Position

Ten-year Comparison (in thousands of dollars)	For the Calendar Year	1977	1976	1975	1974	1973
WORKING CAPITAL AT BEGINNING OF YEAR		137.600	\$ 220.300	\$ 278,000	\$ 134,500	\$ 151,300
FINANCIAL RESOURCES WERE PROVIDED BY:	-					
Net income		61,800	53,100	42.300	34,100	22.100
Add or (deduct) items not affecting wor	king capital:		32.600	27,700	24,800	21,500
Depreciation		37,000	32.600	27,700	24,000	21.200
Amount due to subsidiary company t	•		(7,200)			
joint venturer for its share of loss		(6,200)	600	2.000	1,300	1 200
Deterred income taxes, noncurrent		4,300		2.000	100	100
Income applicable to minority inter-	ests	600	200	(1.000)	(3,200)	(2.700)
Equity in undistributed earnings of a		(400)	(500)	(1.200)	(3.230)	(200)
Loss on sale of interest in Babcock	& Wilcox Ltd			2.500	57,100	42.300
Working capital provided by operations	for the period	97,100	78.900	73.300	37,100	42,300
Fair market value of common stock issued	1					
for purchase of minority interests in si	ubsidiary				6,900	14,500
Additional noncurrent borrowings		66,600	27,600	17,900	0.900	(4,500
Proceeds on sale of interest in Babcock	& Wilcox Ltd			22,700	455.000	
Conversion of current dept to noncurrent					155,000	
Exercise of stock options		3,900	900	100		
		167,500	107.300	114,000	219,000	56 800
FINANCIAL RESOURCES WERE USED FOR	·		62.000	69,700	61,600	36,800
Additions to property, plant and equipme	nt	61,700	62.000	9,600	9.700	9 700
Cash dividends declared		48,100	12.800		1,600	6,500
Reductions of noncurrent indebtedness		12,100	105,700	96,600	1,000	10.500
Purchase of interest in Babcock & Wilco	x Ltd			(500)	100	(300)
Purchases of and other changes in mind	ority interests			(500)	100	12.200
Purchase of treasury stock						12.200
Reclassification of amount due to subsid						
by joint venturer for its share of prior y			6,100	(2.700)	2,500	(1.800)
Other, net		3.000	3,400	(3.700)		73,600
		124,900	190,000	171,700	75.500	
NET INCREASE (DECREASE) IN WORKING CA	PITAL	42,700	(82,700)	(57,700)	143,500	(16 800
WORKING CAPITAL AT END OF YEAR		\$ 180.300	\$ 137,600	\$ 220.300	\$ 278,000	S 134 500

Balance Sheets

Tenimear Cum, arison on indusands of donarss	At December 3:	1977	1976	1975	1974	1973
ASSETS						
CURRENT ASSETS						
Casn		63.300	\$ 30,500	\$ 21,800	\$ 47,900	\$ 30,000
Marketable securities		80.300	39.700	40.000	400	600
Accounts receivable		233,100	171,300	208.100	187,700	177.000
Unbilled sales		215,700	1 6 600	173.200	177,500	123,400
Inventories	.,	287,100	310,600	343,500	307.900	221.600
TOTAL CURRENT ASSETS		879,500	728,700	786.500	721,400	552.600
NVESTMENTS		9,000	8.400	3.900	27,700	24,200
PROPERTY PLANT AND EQUIPMENT		379,900	359.200	332.200	291.600	253,100
PREPAID EXPENSES AND OTHER ASSETS		41,300	27,800	12,700	15.300	11.600
TOTAL ASSETS		1,309,700	\$1,124.100	\$1,135,400	\$1,056,000	\$ 841.500
LIABILITIES AND STOCKHOLDERS' EQUITY						
CURRENT LIABILITIES						
Notes payable		33,800	S 8,200	\$ 75,700	\$ 23,400	\$ 73,000
Accounts payable and accrued liabilities		349.900	325,900	291,000	272,600	218.000
Provision for warranty expense		71,300	69,100	55.900	40,800	42,400
Cash dividends payable		4,600	3,600	2.400	2,400	2,400
U.S. and foreign income taxes		239,600	184.300	141,300	104,200	82.300
TOTAL CURRENT LIABILITIES		699.200	591,100	566,300	443,400	418,100
MONCURRENT INDEBTEDNESS		147,400	92,900	171,000	249,700	86,400
DEFERRED INCOME TAXES		26,800	22,500	21,900	20.000	18.600
MINORITY INTERESTS IN SUBSIDIARY COMPANI	ES	3,100	2,000	1,800	1.300	1,300
TOTAL LIABILITIES		876,500	708.500	761,000	714.400	524 400
STOCKHOLDERS' EQUITY Preferred stock authorized and unissued Common stock including capital surplus		89,500	88.500	88.600	88.700	88.700
Retained earnings	······································	351.700	338.000	297.700	265,000	240.600
		441.200	426.500	386.300	353,700	329.300
Less: Treasury stock, at cost		8,000	10.900	11,900	12,100	12.200
TOTAL STOCKHOLDERS' EQUITY		433,200	415,600 .	374,400	341,600	317,100
TOTAL LIABILITIES AND STOCKHOLDERS	S' EQUITY	1,309,700	\$1,124,100	\$1.135.400	\$1,056,000	\$ 841.500
	Property, Pl	ant and i	Equipment			
Ten-Year Comparison (in thousands of dollars)	For the Calendar Year	1977	1976	1975	1974	:973
COST						
At beginning of year		668,300	\$ 517,700	\$ 553,100	\$ 494,100	\$ 460.500
Additions	,	61,700	62,000	69,700	61,600	36.800
initial consolidation of subsidiaries					3.400	
Retired or sold during year		(9,900)	(11,400)	(5,100)	(6,0001	(3.200)
At end of year		720,100	668,300	617,700	553,100	494,100
ACCUMULATED DEPRECIATION						
At beginning of year		309,100	285,500	261.500	241,000	222,200
Charged to operations during year		37,000	32,500	27,700	24 800	21,600
Other additions		2.300			600	
Retired or sold during year		(8,200)	(9.000)	(3,700)	(4 900)	(7.800
At end of year		340,200	309.100	285.500	261.500	241 CCO
NET BOOK VALUE		\$ 379,900	\$ 359,200	\$ 332,200	\$ 291 600	\$ 253,100
THE BOOK TRACES,						

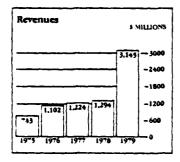
APPENDIX B

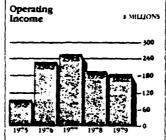
J. RAY McDERMOTT & CO., INC., FINANCIAL STATEMENTS

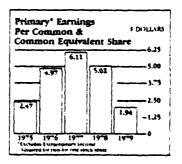
1973 TO 1979

J. Ray McDermott & Co., Inc. and Subsidiaries Ten Year Summary of Operations

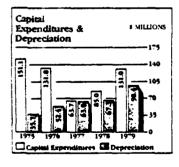
FOR THE FISCAL YEARS ENDED MARCH 31,		1979		1978		197"
Revenues	\$ 3	.144,564	- 5	293,711	,	1.223,841
Costs and expenses	2	.962.514		1.095.943		964.210
Operating income		182,050		197,768		259 631
Other income (expense):						
Interest expense		(52,223)		(26.88*)		(16.15*
Other		71.600		69.206		18,152
Income before provision for income taxes		201,427		240.08		261,626
Provision for income taxes		108.470		80.995		70.116
Income before extraordinary items and cumulative effect of accounting change		92,957		159,092		191,510
Extraordinary items (net of taxes on income)		_				132
Cumulative effect of accounting change						
(net of taxes on income)				_		
Net income	-,	92,957	s	159.092	5	191.6+2
Primary earnings: Before extraordinary items and cumulative effect of accounting change Extraordinary items (net of taxes on income) Cumulative effect of accounting change (net of taxes on income)	\$	1.94	\$	5.02	s	6.11
Net income		1.94		5.02		6.11
Fully diluted earnings: Before extraordinary items and cumulative effect of accounting change Extraordinary items (net of taxes on income) Cumulative effect of accounting change (net of taxes on income)	\$	1.92	s	+92	\$	5.93
Net income	5	1.92	5	4.92	5	5.93
Cash dividends:						
Per common share Cash dividends paid on common stock Cash dividends paid on preferred stock	\$	1.00 32,132 30,295	5	90 28,571	5	.575 18.038
Total amount	\$	62,427	3	28.5~1	5	18.038
Weighted average number of common shares outstanding	32	.366.019	3	1,670,923	3	1.342,492

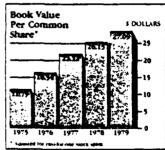


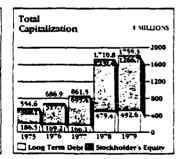




976		1975		1974	_	1973		1972		1971	_	19*0
102,078	5	*42.825	\$	+25,756	5	358,399	5	321,509	5	238,158	5	284.547
371.797		649,543		379.339		331,1+5		313,949		231.052		259.234
230,281		93,282		46,41		27,254		-,560		- 106		25.313
		(15.9*2)		(8.679)		(5,974)		(4,146)		(3.888)		(3.842)
												3,409
												24,880
66,+2		14,217		12,178		12,554		2.128		1.188		108.8
155,274		*6.447		35.021		16,905		8.153		6.792		16.079
4.910		-		-		270		10,962		-		8,109
		_		(3.023)		_		-				_
160,184	3	6.44	5	31.998	3	17.175	5	19.115	5	6.~92	5	2+.188
+.97 .16	S	2.47	· s	1.26	3	.63 .01	5	.30 .41	S	.25 —	\$	61 31
					- -							
3.13		<u> </u>				.04				<u> </u>		.92
4.80	5	2.39	5	1.13	5	.61	5	.30	s	.25	s	.61
.15		-		-		.01		.41				.31
				(.09)		_		_				
4.95	5	2.39	5	1.04	<u>,</u> 5	.62	3	-1	5	.25	S	.92
425		30		2628		74		25		24		.25
13.283	•	9.289	•	7.380	•	6.733	•	6,724	•	6, 15	•	6.604
13 283		9.789		7 380	-	6733		6 - 24		6715		6,604
	_										-	6,404.928
- 4 ,176	,	0,091,.90	-			U,740,107	÷	ひ、ひひす、ブブム	- 4	U,UJ7, 16	4	ひ,マひマ.ア40
	102,0*8 8*1,*9** 230,281 (22,06*) 13,487 221,*01 66,42** 155,2*4 4,910 	102,0°8	102,0°8	102,0°8	102,0°8	102,0°8	102,0°8	102,0°8	102,0°8	102,0°8	102.0°8 5 "42.825 5 425."56 5 358.399 5 321.509 5 238.158 871."9" 649.545 5"9.339 331.145 315.949 231.052 230.281 93.282 46.41" 27.254 ".560 "106 (22.067) (15.9°2) (8.6°9) (5.9°4) (4.146) (3.888) 13.487 13.354 9.461 8.1°9 6.86" 4.762 221."01 90.664 4*.109 29.459 10.281 7.980 66.42" 14.217 12.178 12.554 2.128 1.188 155.2"4 76.447 35.021 16.905 8.153 6.792 4.910 — (3.023) — — — — — — — — — — — — — — — — — — —	102,0°8 5 "42,825 5 425,"56 5 358,399 5 321,509 5 248,158 5 871,"0° 649,543 5"9,339 331,145 313,949 231,052 230,281 93,282 46,41" 27,254 7,560 7106 (22,067) (15,9°2) (8,6°9) (5,9°4) (4,146) (3,888) 13,487 13,344 9,461 8,1°9 6,86° 4,"62 221,"01 90,664 47,199 29,459 10,281 7,980 66,42" 14,217 12,1°8 12,554 2,128 1,188 155,2°4 76,447 35,021 16,905 8,153 6,"92 4,910 7 20 10,962 7 (3,023) 7 7 20 10,962 7 (3,023) 7 7 20 10,962 7 (3,023) 7 7 20 10,962 7 (3,023) 7 7 20 10,962 7 (3,023) 7 7 20 10,962 7 (3,023) 7 7 20 10,962 7 (3,023) 7 7 20 10,962 7 (3,023) 7 7 20 10,962 7 (3,023) 7 7 20 10,962 7 (3,023) 7 7 20 10,962 7 (3,023) 7 7 20 10,962 7 (3,023) 7 7 20 10,962 7 (3,023) 7 7 20 10,962 7 7 20 10,962 7 (3,023) 7 7 20 10,962 7 20 10,962 7 20 10,962 7 20 10,962 7 20 10,962 7 20 10,962 7 20 10,962 7







CONSOLIDATED BALANCE SHEET

	^	•	
А	`	``	

733613	MARCH 31,	
	1974	1973
CURRENT ASSETS:		
Cash	5 3.692.373	5 730,669
Certificates of deposit	31.318,873	28.462,500
Accounts and notes receivable—trade.	121.701.222	89,127,858
Other accounts and notes receivable	23,163,684	2,727,694
Marketable securities—at cost (market		
1974. \$20,206,736; 1973. \$17.695.946)	10.349.382	10,349,382
Costs of uncompleted contracts (in excess of related		
billings. 1974, 541,287,874, 1973, \$12,663,012)	40.989,856	18,122,139
Inventories—merchandise and materials and		
supplies at average cost		26.328.811
Prepaid expenses		3,372,442
Deferred income tax benefit		579,856
Total current assets	<u> 5279,175,524</u>	<u>\$179,801,351</u>
INVESTMENTS, ADVANCES, ETC.:		
Long-term notes receivable	5 3.013.554	\$ 22,547,779
investments	6.275. <i>7</i> 76	3,144,292
Advances, etc.	983,798	1,336,401
Total investments, advances, etc.	<u>5_10,273,128</u>	5 27,028,472
PROPERTY. PLANT AND EQUIPMENT—AT COST	5428,158,008	\$355,402,367
Less accumulated depreciation and amortization	149,019,801	124,391,289
Property, plant and equipment—net	\$279,138,207	\$231,011,078
EXCESS OF COST OVER NET ASSETS OF PURCHASED		
BUSINESSES	5 6,252,028	<u> 5 6,935,620</u>
DEFERRED CHARGES AND OTHER ASSETS	<u>5 3.959,713</u>	5 5,539,448
TOTAL	5578,798,600	\$450,315,969

LIABILITIES

CINDICITIES	MAR	CH 31,
	1974	1973
CURRENT LIABILITIES		
Notes payable and current maturities of long-term debt	5 43.281.760	\$ 32.458.877
Accounts payable and accrued expenses	44.885.271	34,948,429
Dividend payable	2.302.621	1,683.800
Billings on uncompleted contracts (in excess of		
related costs, 1974, \$90.643,393, 1973 565,185,746)		24.462.379
Accrued employees' pension plan contributions	2.798,269	2.174.427
Accrued interest	2,351,951	1.513,112
Accrued taxes, other than taxes on income		1,624.344
Accrued taxes on income		10,688,097
Total current liabilities.	<u>\$169,094,700</u>	<u>\$109,553,465</u>
OTHER LIABILITIES AND RESERVES:		
Deferred income taxes	5 20.912.169	\$ 18,504,034
Reserve for self insurance.		_
Reserve for supplemental compensation and		
other deferred credits	1.461,469	1.265.089
Reserve for foreign operations and dry-docking costs	3,663,382	1.000,000
Total other liabilities and reserves	5 <u>27,428,448</u>	<u>\$ 20,769,123</u>
MINORITY INTERESTS	<u> 39,986</u>	5 20,028
LONG-TERM DEBT	<u> 81,465,540</u>	\$111,046,608
CAPITAL AND RETAINED EARNINGS:		•
Common stock, par value \$1 per share, authorized		*
18,000,000 shares; issued 1974, 7,747,105 shares;		•
1973. 6.806.161 shares	5 7,747,105	5 6,806,161
Capital in excess of par value, per accompanying		
statement	130,114,926	63,598.593
Retained earnings, per accompanying statement	164,935,594	140,549,690
	\$302.797.625	\$2 10,954,444
Less cost of 71,701 shares of common stock in treasury.	2.027.699	2,027,699
Total capital and retained earnings	5300 <u>,769,926</u>	\$208,926,745
TOTAL	5578,798 600	\$450.315.969

ASSETS		
	1976	1975
CURRENT ASSETS.		
Cash	\$ 16,039,784	\$ 17.082.122
Certificates of deposit	201,35 5,576	58.159,508
Accounts and notes receivable-trade	262,452,978	220.862.022
Other accounts and notes receivable	23,567,400	24.693.177
Marketable securities — at cost (market		
1976, \$14,774,919; 1975, \$15,019,465)	9,230,876	10.274.977
Costs of uncompleted contracts (in excess		
of related billings. 1976. \$69.535 804,		
1975. \$80.533.133)	40,496,454	21.227.369
inventories — merchandise and materials		
and supplies	74,950,768	90.350.365
Prepaid expenses	5.848.688	<u>2,946.895</u>
Total current assets	<u>\$ 633,942,524</u>	<u>\$445.596,435</u>
INVESTMENTS, ADVANCES, ETC:		
Long-term notes receivable	\$ 387,857	\$ 388,463
Investments at cost		1.099.433
Investments in affiliated companies at equity	7,789,254	5.297.239
Advances, etc.	864.040	952.140
Total investments, advances, etc.	\$ 10,306,748	\$ 7737275
Total myestments, advances, etc.	5 10.305./40	<u> </u>
PROPERTY PLANT AND EQUIPMENT - AT COST	c aga g7 <i>a</i> arr	\$567.194.898
Less accumulated depreciation and amortization		178.844 769
		\$388.350.129
Property, plant and equipment — net	\$ 402'301'510	3388.350.129
EXCESS OF COST OVER NET ASSETS OF PURCHASED		
BUSINESSES	<u>6,252,028</u>	<u>\$ 6.252.028</u>
DESERBED CHARGES AND OTHER ACCURA		• • • • • • • • • • • • • • • • • • • •
DEFERRED CHARGES AND OTHER ASSETS	<u> 1.481.248</u>	\$ 1 566.190
TOTAL	\$1.117.945.778	\$849.502.05 7

LIABILITIES

	1976	1975
CURRENT LIABILITIES:		
Notes payable and current maturities of		
long-term debt	\$ 10,414,741	\$ 30.163.095
Accounts payable and accrued expenses	122,132,810	95.794.317
Dividend payable	3,910,925	2.342.210
Billings on uncompleted contracts (in excess of		
related costs. 1976. \$354.283.710; 1975. \$251.078.404)	152,327,603	96.165.415
Accrued employees' pension plan contributions	4,976,711	3.417.462
Accrued interest	6,233,539	5.051.066
Accrued taxes, other than taxes on income	10,892,621	2.961.350
Deferred income taxes	4,535,837	1.086.066
Accrued taxes on income	61,309,513	23.714.621
Total current liabilities	\$_376.734.300	\$260,695,602
OTHER LIABILITIES AND RESERVES:		
Deferred income taxes	\$ 35,774,171	\$ 22.824.398
Reserve for self insurance	8,052,563	4.660.969
Reserve for supplemental compensation		
and other deferred credits	9,852,752	3.305.517
Reserve for foreign operations and		
dry-docking costs	4.271.413	4.950.834
Total other liabilities and reserves	\$ 57,950,899	\$ 35.741 718
MINORITY INTERESTS	\$ 187.674	\$ 4.217
LONG-TERM DEBT	\$ 169,399,583	\$186.523.337
CAPITAL AND RETAINED EARNINGS:		•
Common stock, par value \$1 per share, authorized		
36.000.000 shares; issued 1976, 15.795.530 shares;		
1975. 7.881.126 shares	s 15,795,530	s 7.881,126
Capital in excess of par value, per accompanying		
statement	134,010,519	140,777,743
Retained earnings, per accompanying statement	378,237,049	231.727.531
	\$ 526,043,098	\$380,386,400
(Less):		
Cost of common stock in treasury.		
(1976. 152.338 shares: 1975. 73.759 shares)	(2,400,806)	(2.176.490)
Unamortized deferred career executive stock	•	
pian expense	(9,968,970)	(11.672.727)
Total capital and retained earnings	\$ 513,673,322	\$366.537,183
TOTAL	\$1,117,945,778	\$849.502.057

ASSETS

	1977	1976 Restated)
Current Assets:		
Cash	\$ 5.231,310	5 16.039.784
Certificates of deposit	469,246,523	201.355.576
Short-term securities at cost which approximates market.	58,043,912	-
Accounts and notes receivable - trade.	246,176,325	262.452.978
Other accounts and notes receivable.	11.475,515	23.567.400
Marketable equity securities — at cost (market 1977, 514,276,800; 1976, 514,774,919)	9.230.876	9.230.376
Costs of uncompleted contracts (in excess of related billings.	7,4,0,0,0	
1977, \$39,131,028; 1976, \$69,535,804).	32,250,129	10.496.454
Costs of uncompleted contracts (in excess of related billings, 1977, 539,131,028; 1976, 569,535,804). Inventories — merchandise and materials and supplies Prepaid expenses.	50,969,197	77.003.616
Prepaid expenses.		5.848.688
Total current assets.	3538,413,501	5 635.995.372
Investments, Advances, Etc.: Long-term notes receivable. Investments at cost. investments in affiliated companies at equity. Advances, etc Total investments, advances, etc	\$ 258.571 884.035 11.912.253 313.657 \$ 12.363,516	7.789.254 364.040
Property. Plant and Equipment At Cost. Lass accumulated depreciation and amortization Property, plant and equipment net.	3754.788.662 288.639.343 3466.148.713	5 593.974.355 228.011.125 5 465.963.230
Excess of Cost Over Net Assets of Purchased Businesses		
Deferred Charges and Other Assets	<u>\$ 1,322,518</u>	5 1.481.248
Total	\$1,376,005,342	\$1.119.998.626

LIABILITIES

	1977	1976 Restated
Current Liabilities:		
Notes payable and current maturities of long-term debt	3 ₁₂ 6,323,301	5 10.414.741
Accounts payable and accrued expenses.	+40,373,434	122.132.510
Dividend payable.	6,289,128	3 910 9 25
Billings on uncompleted contracts (in excess of related costs, 1977, \$389,432,839; 1976, \$354,283,710)	173.391,306	152.327.603
Accrued employees pension plan contributions	7,000,200	4,976.711
Accrued interest	6,059,388	6.233.539
Accrued taxes, other than taxes on income.	13,190,434	10.892.621
Deferred income taxes.	3,322,139	4.714.404
Accrued taxes on income	95,683,355	61.309.513
Total current liabilities.	\$425,465.138	5 376.912.967
Other Liabilities and Reserves:		
Deferred income taxes.	\$ 57,585,689	5 35,774,171
Insurance claims and policy reserves.	10.037.656	7.076.485
Reserve for supplemental compensation and other deferred credits	17,137,679	9.352,752
Reserve for drydockung costs	3,319,345	3.271.413
	3 38, 380, 369	\$ 55.974.821
Total other liabilities and reserves.	<u>\$ 30,000,00</u>	3 33.974.021
Minority Interests	<u>\$ 937.146</u>	\$ 187.674
Long-Term Debt.	£166,377,676	5 169 259 583
Capital and Retained Earnings:		
Common stock, par value \$1 per share, authorized 36,000,000 shares:		. 1. 705 . 20
issued 1977, 15.877.948 shares: 1976, 15.795.530 shares.	\$ 15,877,948	5 15.795.530
Capital in excess of par value, per accompanying statement.	136,762,103	134.010.519
Retained earnings, per accompanying statement	553, 331, 827	380.227.408
	3706.471.373	\$ 530,033,457
· Less):		
Cost of common stock in treasury		
(1977, 154,978 shares: 1976, 152,338 shares).	(2,516,884)	
Unamortized deferred career executive stock plan expense.	<u>(8,512,981)</u>	(9.968.970)
Total capital and retained earnings.	\$695, 442, 313	5 517.663.681
Total	\$1,376,005,342	\$1.119.998.626
		·—

	1979	1978
	(In thousand	
Current Assets		
Casti	\$ 19,752	\$ 22.8+2
Short-term investments, at cost which		
approximates market	621.112	595 150
Accounts and notes receivable	604,059	535.28
Marketable securities, at cost		
(market \$18.302,000 in 1979 and \$17.056.000 in 1978)	9.231	9 23
Contracts in progress	330.020	324.120
Inventories	342,493	332.030
Prepaid expenses	10.063	1235
Total Current Assets	1,936,750	1.831 01
Companies, at Equity	12,398	19.90
Property, Plant and Equipment, at Cost:	36,579	36.0**
Lind Buildings	194,535	1*4,390
Machinery and equipment	1.021.738	931.22
Property under construction	108,238	97.11
Property under Construction	1,361,090	1,238.80
Less accumulated depreciation and amortization	440,346	3+* 22
	920,744	891.58
Net Property. Plant and Equipment		
Excess of Cost Over Fair Value of Net	3°9 404	403.32
Excess of Cost Over Fair Value of Net Assets of Purchased Businesses Less Amortization	379,404	403.32
Excess of Cost Over Fair Value of Net	379.404 51,646	403.32 36.98

LIABILITIES AND STOCKHOLDERS' EQUITY	1979	19**8
	(In thousand	
Current Liabilides:	(
Notes payable to banks and current		
maturities of long-term debt	\$ 20.425	\$ 12,108
Accounts payable	186.718	232,506
Accrued liabilities	345,864	279 672
Advance billings on contracts	262,518	278 130
Provision for warranty expense	106.934	*9.390
U.S. and foreign income taxes	126.839	120 991
Dividends pavable	15.623	- 999
Total Current Liabilities	1.064,921	1 011 296
Deferred and Non-Current Income Taxes	181 421	1"2,"98
mrome rates	361 723	9 2. 9 8
Long-Term Debt	+92.6+*	+79 +32
Other Liabilities	95.1 89	8° 8+2
Contingencies and Commitments		
Stockholders' Equity		
Preferred stock	394,50**	394.84*
Common stock	32,523	32.30*
Capital in excess of par value	133.03 8	129 505
Retained camings	71+.883	58+ 353
	1,274,951	1.241.012
Less: Cost of common stock in treasury	2,871	2.681
Unamoruzed deferred Career Executive Stock Plan expense	5.418	0 842
Total Stockholders' Equity	1.266.662	1 231 439
Total	53,300,942	53 182.80

). Ray McDermost & Co., Inc. and Subsidiaries for the Fiscal Years Ended March 31, 1979 and 1978 Consolidated Statement of Income and Retained Earnings

	1979	1978
	(In thousan	
	excebt bes sp	ste smonva
Revenues	\$3,1 44 ,564	\$1,293,711
Costs and Expenses:		
Cost of operations	2,600,274	901.696
Depreciation and amortization	111,365	6°.61+
Seiling, general and administrative expenses	250.875	126 633
	2,962,51+	1.095.94
Operating Income	182.050	197.766
Other Income (Expense):		
Interest income	54.826	34.12
Interest expense	(52,223)	1 26.88
Equaty in earnings of affiliated companies - 8 & W	-	20.36-
- Other	8,678	3.554
Other	8,096	11.16
	193-	+2319
Income Before Provision for Income Tixes	19.3 201.427	+2.319 240.08
Provision for Income Taxes Current	201,427 25,756	240.08° 68.290
Provision for Income Taxes	201.427 25,756 82,714	240.08° 68.290 12.°04
Provision for Income Taxes Current Deferred	201,427 25,756 82,714 106,470	240.08 ⁻¹ 68.290 12. ⁻¹ 04 80.994
Provision for Income Taxes Current	201.427 25,756 82,714	
Provision for Income Taxes Current Deferred Net Income	201,427 25,756 82,714 106,470	240.08** 68.29** 12.**0** 80.99** 159.09**
Provision for Income Taxes Current Deferred Net Income Remined Enraings, Beginning of Year	25,756 82,714 108,4°0 92,957	240.08** 68.29** 12.**0** 80.99** 159.09**
Provision for Income Taxes Current Deferred Net Income Remined Enraings. Beginning of Year Deducts Cash dividends — common (\$1.00 in 19*9 and \$0.90 in 19*8 per share)	201,427 25,756 82,714 108,4*0 92,957 684,353 32,132	240.08 ⁻¹ 68.290 12. ⁻¹ 04 80.994
Provision for Income Taxes Current Deferred Net Income Remined Earnings, Beginning of Year Deduce	201,427 25,756 82,714 108,4*0 92,957 684,353 32,132	240.08** 68.29(12.70) 80.99** 159.09:
Provision for Income Taxes Current Deferred Net Income Remined Earnings, Beginning of Year Deduce Cash dividends — common (\$1.00 in 1979 and \$0.90 in 1978 per share) — preferred (Senes A, \$2.20 and Senes B, \$2.60 per share in 1979)	201,427 25,756 82,714 108,4*0 92,957 684,353 32,132	240.08** 68.29(12.70) 80.99(159.09) 553.832
Provision for Income Taxes Current Deferred Net Income Remined Enraings. Beginning of Year Deducts Cash dividends — common (\$1.00 in 19*9 and \$0.90 in 19*8 per share)	25,756 82,714 108,470 92,957 684,353 32,132 30,295	240.08** 68.29(12.70) 80.99* 159.092 553.834 28.5**1
Provision for Income Taxes Current Deferred Net Income Remined Earnings. Beginning of Year Deduct: Cash dividends — common (\$1.00 in 19*9 and \$0.90 in 19*8 per share) — preferred (Series A. \$2.20 and Series B. \$2.60 per share in 19*9) Remined Earnings. End of Year Earnings Per Common and Common Equivalent Share:	201,427 25,756 82,714 108,4*0 92,957 684,353 32,132 30,295 5 714,883	240.08** 68.29(12.70) 80.99(159.09) 553.83(28.5**) 5 684.35?
Provision for Income Taxes Current Deferred Net Income Remined Earnings. Beginning of Year Deduce Cash dividends — common (\$1.00 in 1979 and \$0.90 in 1978 per share) — preferred (Senes A, \$2.20 and Senes B, \$2.60 per share in 1979) Remined Earnings. End of Year	25,756 82,714 108,470 92,957 684,353 32,132 30,295	240.08** 68.29(12.70) 80.99* 159.092 553.834 28.5**1

APPENDIX C

List of Abbreviations

AMD	Automated Machine Division
BBR	Babcock-Brown Boveri Reaktor, GmbH
B&W	Babcock & Wilcox Company
CCI	Control Components International
FTC	Federal Trade Commission
HPI	High Pressure Injection
McDERMOTT	J. Ray McDermott & Co., Incorporated
NRC	Nuclear Regulatory Commission
NYSE	New York Stock Exchange
OPEC	Organization of Petroleum Exporting Countries
RCS	Reactor Coolant System
SEC	Securities and Exchange Commission
TMI	Three Mile Island
U.T.C.	United Technologies Corporation

FOOTNOTES

- 1 Rostow, W.W., The World Economy, Austin, Texas: University of Texas Press, 1978, p. 591
 - ²Ibid., p. 591-592
 - ³Ibid., p. 591-597
 - ⁴Ibid., p. 598
 - ⁵Ibid., p. 598-599
 - ⁶J. Ray McDermott & Co., Inc., Annual Report, 1977, p. 5
- Hunt, P., Williams, C.M. and Donaldson, G., Basic Business Finance, Homewood: Illinois, Richard D. Irwin, 1971, p. 539
- Short, R.A., Business Mergers, How and When to Transact Them, New Jersey: Prentice-Hall, 1967, p. 11
- ⁹Joy, O.M., <u>Introduction to Financial Management</u>, Homewood: Illinois, Richard D. Irwin, 1980, p. 508
- 10 Harvey, J.L. and Newgarden, A., Management Guides to Mergers and Acquisitions, New York; John Wiley & Sons, Inc., p. 309
- ll Linowes, D.F., Managing Growth Through Acquisition, American Management Association, Inc., 1968, p. 51
- 12 Joy, O.M., <u>Introduction to Financial Management</u>, Homewood: Illinois, Richard D. Irwin, 1980, p. 508
- 13Hennessy, Jr., E.L., "Growth Through Acquisition at United Technologies," <u>Industrial Marketing Management</u>, Vol. 7, No. 6, December 1978, p. 397
- 14Hunt, P., Williams, C.M. and Donaldson, G., Basic Business Finance, Homewood: Illinois, Richard D. Irwin, 1971, p. 540
- 15Ehrbar, A.F., "Corporate Takeovers Are Here to Stay,"
 Fortune, 8 May 1978, p. 91

- 16 Hennessy, Jr., E.L., "Growth Through Acquisition at United Technologies," Industrial Marketing Management, Vol. 7, No. 6, December 1978, p. 400
- 17Kintner, E.W., Primer On the Law of Mergers, New York: MacMillan Publishing Co., Inc., 1973, p. 27
- 18 Short, R.A., Business Mergers, How and When to Transact Them, New Jersey: Prentice-Hall, 1967, p. 163-164
 - ¹⁹Ibid., p. 164
- 20Ehrbar, A.F., "Corporate Takeovers Are Here to Stay."
 Fortune, 8 May 1978
- ²¹Hennessy, Jr., E.L., "Growth Through Acquisition at United Technologies," <u>Industrial Marketing Management</u>, Vol. 7, No. 6, December 1978, p. 400
- 22House of Representatives, Atomic Energy Act of 1946 and Amendments, Washington, D.C.: Government Printing Office, 1971, p. 68
- 23 "United Technologies Submits Acquisition Proposal to Babcock & Wilcox Board of Directors," United Technologies News Release, 29 March 1977
- 24"An unwelcome suitor keeps plugging away," Business Week, 18 April 1977, p. 48
 - ²⁵Ibid., p. 49
- ²⁶"United Technologies fights on for Babcock," <u>Business</u> Week, 25 July 1977, p. 56
- 27"A Struggle for Power: The Babcock & Wilcox Takeover,"
 The Accountant, 29 September 1977, p. 387
 - 28United Technologies News Release, 25 August 1977
- 29 J. Ray McDermott & Co., Inc., Merger of the Babcock & Wilcox Co. into McDermott Energy, Inc., a Delaware Corporation and a Wholly-owned Subsidiary of J. Ray McDermott & Co., Inc., Vol. I, 1978, Section 25, p. 6
 - 30 Ibid., p. 8-9
- 31"McDermott Stockholders Back Deal with B&W," New York Times, 31 March 1978, p. 9

- J. Ray McDermott & Co., Inc., Merger of the Babcock & Wilcox Co. into McDermott Energy, Inc., a Delaware Corporation and a Wholly-owned Subsidiary of J. Ray McDermott & Co., Inc., Vol. I, 1978, Section 25, p. 57
 - ³³Ibid., p. 58
 - ³⁴Ibid., p. 58-59
 - 35_{Ibid., p. 59}
 - 36 Babcock & Wilcox Co., Annual Report, 1977, p. 4
- 37 J. Ray McDermott & Co., Inc., Merger of the Babcock & Wilcox Co. into McDermott Energy, Inc., a Delaware Corporation and a Wholly-owned Subsidiary of J. Ray McDermott & Co., Inc., Vol. I, 1978, Section 25, p. 59
 - 38 J. Ray McDermott & Co., Inc., Annual Report, 1979, p. 23
- 39 J. Ray McDermott & Co., Inc., Merger of the Babcock & Wilcox Co. into McDermott Energy, Inc., a Delaware Corporation and a Wholly-owned Subsidiary of J. Ray McDermott & Co., Inc., Vol. I, 1978, Section 25, p. 59-60
- 40 J. Ray McDermott & Co., Inc., Merger of the Babcock & Wilcox Co. into McDermott Energy, Inc., a Delaware Corporation and a Wholly-owned Subsidiary of J. Ray McDermott & Co., Inc., Vol. I, 1978, Section 25, p. 11
 - 41 Ibid., p. 6
 - ⁴²Ibid., p. 44
 - ⁴³Ibid., p. 45-46
 - 44 Ibid., p. 46
 - 45 Ibid., p. 46
 - 46 Ibid., p. 47
 - 47 J. Ray McDermott & Co., Inc., Annual Report, 1979, p. 9
- 48 "McDermott's Net Drops," New York Times, 9 August 1978, Section D, p. 5
- 49"J. Ray McDermott: Learning from and Leaning on a Major Acquisition," <u>Business Week</u>, 18 June 1979, p. 143

- 50 Schneider, J.W., A Financial Review of the Navy Exchange Program: 1973 to 1978, Master's Thesis, Naval Postgraduate School, Monterey, Ca., 1980, p. 96
 - 51 Ibid., p. 99
 - 52J. Ray McDermott & Co., Inc., Annual Report, 1979, p. 3
- 53 Securities and Exchange Commission, Form 10-K, J. Ray McDermott & Co., Inc., 31 March 1979, p. 16-17
 - 54Babcock & Wilcox Co., Annual Report, 1977, p. 13
 - ⁵⁵Ibid., p. 12
 - ⁵⁶Ibid., p. 12-13
 - 57 J. Ray McDermott & Co., Inc., Annual Report, 1975, p. 39
- 58 United Technologies Corporation, Facts & Figures, July 1979, p. 6-19
- 59 "His Aggressive Merger-Making Has Reshaped United Technologies," <u>Business Week</u>, 10 December 1979, p. 77
 - 60 Ibid., p. 74-77
- 61"A Struggle for Power: The Babcock & Wilcox Takeover,"
 The Accountant, 29 September 1977, p. 387
 - 62_{Ibid.}, p. 387
 - 63 Ibid., p. 388
- 64 "How McDermott Won its Babcock Victory," <u>Business Week</u>, 12 September 1977, p. 40
- 65 Certificate of Merger Between The Babcock & Wilcox Co., a New Jersey Corporation, and McDermott Energy, Inc., a Delaware Corporation, 31 March 1978
- 66J. Ray McDermott & Co., Inc., Merger of the Babcock & Wilcox Co. Into McDermott Energy, Inc., a Delaware Corporation and a Wholly-owned Subsidiary of J. Ray McDermott & Co., Inc., Vol. I, 1978, Section 25, p. 11
 - 67 Ibid., p. 15
- 68"J. Ray McDermott: Learning from and Leaning on a Major Acquisition," Business Week, 18 June 1979, p. 143-144

- 69 J. Ray McDermott & Co., Inc., Annual Report, 1980, p. 3
- 70 Castro, W.R. and Cottrell, W.B., "Preliminary Report on the Three Mile Island Incident," <u>Nuclear Safety</u>, Vol. 20, No. 4, July-August 1979, p. 487
- 71 "Political repercussions of Three Mile Island?," Nuclear Engineering International, Vol. 24, No. 284, April 1979, p. 3
- 72"Have Three Mile Island's lessons been learned?," The Economist, Vol. 274, No. 7-118, 2 February 1980, p. 79
 - 73_{Ibid., p. 79}
- 74 Miller, W.H., "What next for nuclear power?," <u>Industry Week</u>, 16 April 1979, p. 17
- 75"J. Ray McDermott: Learning from and Leaning on a Major Acquisition," Business Week, 18 June 1979, p. 144
 - 76_{Ibid.}, p. 144
 - ⁷⁷Ibid., p. 144
 - 78 J. Ray McDermott & Co., Inc., Annual Report, 1980 p. 18-23

BIBLIOGRAPHY

Articles, Periodicals and Reports

- "After winning Otis, whither United Technologies," Business Week, p. 80-85, 15 December 1975
- "An unwelcome suitor keeps plugging away," <u>Business Week</u>, p. 48-49, 18 April 1977
- "A Struggle for Power: The Babcock & Wilcox Takeover," The Accountant, p. 397-8, 29 September 1977
- Babcock & Wilcox Co., <u>Annual Report</u>, 1973, 1974, 1975, 1976, 1977
- "Banking is in his blood." Business Week, p. 60, 3 April 1978
- Castro, W.R. and Cottrell, W.B., "Preliminary Report on the Three Mile Island Incident." <u>Nuclear Safety</u>, Vol. 20, No. 4, p. 483-490, July-August 1979
- "Economics Shock Wave follows A-Plant Accident, Clouding Utility Plans," Engineering News-Record, p. 36-39, 12 April 1979
- Ehrbar, A.F., "Corporate Takeovers Are Here to Stay," Fortune, p. 91-100, 8 May 1978
- "End of the Struggle: The B&W Takeover," The Accountant, Vol. 177, p. 697, 1 December 1977
- "Have Three Mile Island's lessons been learned?," The Economist, Vol. 274, No. 7-118, p. 79-80, 2 February 1980
- Hennessy, Jr., E.L., "Growth Through Acquisition at United Technologies," <u>Industrial Marketing Management</u>, Vol. 7 No. 6, p. 396-401, December 1978
- "His Aggressive Merger-Making Has Reshaped United Technologies," Business Week, p. 74-88, 10 December 1979
- House of Representatives, Atomic Energy Act of 1946 and Amendments, Government Printing Office, 1971
- "How McDermott Won its Babcock Victory," <u>Business Week</u>, p. 40-41, 12 September 1977

- "Inflation tilts the energy policy," <u>Business Week</u>, P. 26-28 16 April 1979
- "J. Ray McDermott: Learning from and Leaning on a Major Acquisition," <u>Business Week</u>, p. 143, 18 June 1979
- J. Ray McDermott & Co., Inc., Annual Report, 1973-1980
- Key Business Ratios: 1975-1977, Dun & Bradstreet
- Knox, R., "Three Mile Island: worse to come?" Nuclear Engineering International, Vol. 24, No. 285, p. 15, May 1979
- "McDermott's Net Drops," New York Times, Sec. D, p. 5, 9 August 1978
- "McDermott Stockholders Back Deal with B&W," New York Times, p. 9, 31 March 1978
- Miller, W.H., "What next for nuclear power?", Industry Week, p. 17-19, 16 April 1979
- Moody's Investors Service, Supplement to Moody's Investors Fact Sheets, Industrial Review, New York, 12 October 1979
- Moody's Investors Service, Moody's Investors Fact Sheets, Vol. 3, No. 23, Section 55, New York, 1980
- "Political repercussions of Three Mile Island?", Nuclear Engineering International, Vol. 24, No. 284, p. 3, April 1979
- Schneider, J.W., <u>A Financial Review of the Navy Exchange</u>

 <u>Program: 1973 to 1978, Master Thesis, Naval Postgraduate</u>

 <u>School, Monterey, Ca., 1980</u>
- Securities and Exchange Commission, Form 10-K, J. Ray McDermott & Co., Inc., 31 March 1978
- Securities and Exchange Commission, Form 10-K, J. Ray McDermott & Co., Inc., 31 March 1979
- "The Takeover Wave is Engulfing Some Solid Citizens," Fortune, p. 61-64, May 1977
- United Technologies Corporation, Annual Report, 1979
- United Technologies Corporation, Facts & Figures, July 1979

- "United Technologies fights on for Babcock", Business Week, p. 56, 25 July 1977
- "United Technology plows ahead with effort to buy B&W," Iron Age, Vol. 220, p. 13-14, 15 August 1977
- "We all live in Harrisburg," The Economist, Vol. 271, No. 7075, p. 19-20, 7 April 1979

Books

- Dam, K.W., Oil Resources, Who Gets What How?, University of Chicago Press, 1976
- Glueck, W.F., Business Policy and Strategic Management, McGraw-Hill, 1980
- Harvey, J.L. and Newgarden, A., Management Guides to Mergers and Acquisitions, John Wiley, Inc., 1969
- Hunt, P., Williams, C.M. and Donaldson, G., Basic Business
 Finance, Irwin, 1971
- Joy, O.M., Introduction to Financial Management, Irwin, 1980
- Kintner, E.W., Primer On the Law of Mergers, MacMillan Publishing Co., Inc., 1973
- Linowes, D.F., Managing Growth Through Acquisition, American Association, Inc., 1968
- Moody's Investors Service, Moody's Industrial Manual, Vol. 2, New York, 1975
- Moody's Investors Service, Moody's Industrial Manual, Vol. 2, New York, 1979
- Moody's Investors Service, Moody's Handbook of Common Stocks, New York, Spring 1980
- Nuclear Energy Policy Study Group, <u>Nuclear Power Issues and</u> Choices, Ballinger Publishing Company, 1977
- Rostow, W.W., <u>The World Economy</u>, University of Texas Press, 1978
- Schall, L.D. and Haley, C.W., <u>Introduction to Financial</u> Management, McGraw-Hill, 1980

- Short, R.A., Business Mergers, How and When to Transact Them, Prentice-Hill, 1967
- Welsch, G.A. and Anthony, R.N., <u>Fundamentals of Financial Accounting</u>, Irwin, 1977

Unpublished Material and Press Releases

- Certificate of Merger Between The Babcock & Wilcox Co., a New Jersey Corporation, and McDermott Energy, Inc., a Delaware Corporation, 31 March 1978
- Cunningham, J.E., Executive Vice President & Chief Financial Officer, The Babcock & Wilcox Company Tender Offer, 1977
- J. Ray McDermott & Co., Inc., Merger of the Babcock & Wilcox Co. into McDermott Energy, Inc., a Delaware Corporation & a Wholly-owned Subsidiary of J. Ray McDermott & Co., Inc., Vol. I, 1978
- J. Ray McDermott & Co., Inc., Merger of the Babcock & Wilcox Co. into McDermott Energy, Inc., a Delaware Corporation & a Wholly-owned Subsidiary of J. Ray McDermott & Co., Inc., Vol. II, 1978
- "United Technologies submits acquisition proposal to Babcock & Wilcox Board of Directors," United Technologies News Release, 29 March 1977
- United Technologies News Release, 25 August 1977

INITIAL DISTRIBUTION LIST

		No.	Copies
1.	Defense Technical Information Center Cameron Station Alexandria, Virginia 22314		2
2.	Defense Logistics Studies Information Exchange U.S. Army Logistics Management Center Fort Lee, Virginia 23801		1
3.	Library, Code 0142 Naval Postgraduate School Monterey, California 93940		2
4.	Department Chairman, Code 54(Js) Department of Administrative Sciences Naval Postgraduate School Monterey, California 93940		1
5.	Professor Leslie Darbyshire, Code 54(Da) Department of Administrative Science Naval Postgraduate School Monterey, California 93940		1
6.	LCDR Robert A. Bobulinski, SC, USN, Code 54(Eb) Department of Administrative Sciences Naval Postgraduate School Monterey, California 93940		2
7.	LT Robert S. Russell, USN 830 Linden Avenue Baldwin, New York 11510		1

